Catalog
2013-2014

ADDENDUM: 9/28/2013

Cabrillo College
6500 Soquel Drive
Aptos, California 95003
(831) 479-6100
www.cabrillo.edu
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Cabrillo College is accredited by the Accrediting Commission for Community and Junior Colleges of the Western Association of Schools and Colleges, 3402 Mendocino Avenue, Santa Rosa, CA 95403 (707) 569-9177, an institutional accrediting body recognized by the Commission on Recognition of Postsecondary Accreditation and the U. S. Department of Education. Cabrillo College also is a member of the Community College League of California and the American Association of Community and Junior Colleges.

The Cabrillo Community College District has made every reasonable effort to determine that everything stated in this catalog is accurate. Courses and programs offered, together with other matters contained herein, are subject to change without notice by the administration of the Cabrillo Community College District for reasons related to student enrollment, level of financial support, or for any other reason at the discretion of the district. The district further reserves the right to add, amend, or repeal any of its rules, regulations, policies, and procedures.
Our Mission: Cabrillo College is a dynamic, diverse and responsive educational community dedicated to helping all students achieve their academic, career, and personal development goals.

Our Core 4 Competencies:

- Communication
- Critical Thinking
- Global Awareness
- Personal and Professional Responsibility
Governing Board

Ed Banks

Margarita Cortez

Gary Reece

Alan J. Smith

Rachael Spencer

Susan True

Donna Zeil
College Officials

Laurel Jones ........................... President and District Superintendent
Kathleen Welch................. Vice President, Instruction and Assistant Superintendent
Dennis L. Bailey-Fougnier ...... Vice President, Student Services and Assistant Superintendent
Victoria Lewis.................... Vice President, Administrative Services and Assistant Superintendent
Sesario R. Escoto ............... Dean, Student Services
Wanda Garner...................... Dean, Natural and Applied Sciences Division
John Graulty ...................... Dean, Visual, Applied, and Performing Arts Division
Rachel Mayo ...................... Dean, Education Centers (Watsonville and Scotts Valley)
Isabel O’Connor ................... Dean, Human Arts and Social Sciences Division
Rock Pfotenhauer .................. Dean, Career Education and Economic Development
Margery Regalado Rodriguez ........ Dean, Counseling and Educational Support Services
James Weckler ...................... Dean, Business, English, and Language Arts Division
TBD ................................. Dean, Health, Athletics, Wellness, and Kinesiology Division
Loree McCawley ..................... Director, Personnel/Human Resources
Joseph Nugent .................... Director, Facilities Planning & Plant Operations
Tama Bolton ....................... Director, Enrollment Services
Kristin Fabos ...................... Director, Marketing and Communications
Teresa Thomae .................... Director, Small Business Development Center
Melinda Silverstein ............. Executive Director, Cabrillo College Foundation
Divisions and Departments

Business, English, and Language Arts
Dean: James Weckler
- Academy for College Excellence
- Accounting & Finance
- Bilingual and Bicultural Studies
- Business
- Computer Applications/Business Technology
- English
- English as a Second Language
- Journalism
- Reading
- World Languages

Career Education and Economic Development
Dean: Rock Pfotenhauer
- Bay Area Community College Consortium
- Career Technical Education
- CTE Community Collaborative
- CTE Transitions
- Contract Education
- Cooperative Work Experience Education
- Facilities Use
- Perkins (VTEA)
- Small Business Development Center

Health, Athletics, Wellness and Kinesiology
Dean: TBD
- Adaptive PE
- Allied Health
- Dental Hygiene
- Gerontology
- Health Science
- Human Services
- Kinesiology/Athletics
- Medical Assistant
- Nursing Education
- Radiologic Technology
- Special Education
- Stroke and Disability Learning Center

Human Arts and Social Sciences
Dean: Isabel O'Connor
- American Studies
- Anthropology
- Asian Studies
- 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

Counseling and Educational Support Services
Dean: Margery Regalado Rodriguez
- Assessment
- Counseling
- Disabled Student Programs and Services (DSPS)
- International Students
- Learning Skills
- Student Success and Support Program
  (formerly Matriculation)
- Transfer and Career

Natural and Applied Sciences
Dean: Wanda Garner
- Astronomy
- Biology
- Chemistry
- Computer and Information Systems
- Computer Science
- Construction and Energy Management
- Engineering
- Engineering Technology
- Environmental Science
- Geology
- Horticulture
- Mathematics
- MESA
- Oceanography
- Physics
- Welding

Visual, Applied, and Performing Arts
Dean: John Graulty
- Art History
- Art Photography
- Art–Studio
- Dance
- Digital Media
- Music
- Theatre Arts
Academic Calendar
2013–2014

FALL SEMESTER

- September 2: Labor Day Holiday
- September 3: Fall Semester begins
- September 14: Deadline to register for a full-term course
- September 14: Deadline to drop a full-term course with a refund or reversal of charges
- September 15: Last day to drop a full-term course without an academic record "W"
- September 16: Census Day attendance check for full-term courses
- October 5: Deadline for pass/no pass grade option in a full-term course
- November 11: Veterans’ Day (Holiday)
- November 23: Last day to withdraw from a full-term course
- November 28-29: Thanksgiving (Holiday)
- December 6: Last day to petition for fall degrees and certificates
- December 16-21: Final Examinations
- December 21: Fall Semester ends

SPRING SEMESTER
January 27, 2014- May 24, 2014

- January 27: Spring Semester begins
- February 8: Deadline to register for a full-term course
- February 8: Last day to drop a full-term course with a refund or reversal of charges
- February 9: Last day to drop a full-term course without an academic record "W"
- February 10: Census day attendance check for full-term courses
- February 14, 17: President’s Day Holidays Observed
- March 1: Last day for pass/no pass grade option
- March 31-April 5: Spring Break
- April 11: Last day to petition for spring degrees and certificates
- April 26: Last day to withdraw from full-term course
- May 19-24: Final Examinations
- May 23: Graduation
- May 24: Spring Semester ends
- May 26: Memorial Day (Holiday)

SUMMER SESSIONS (tentative)
June 6, 2014 - August 1, 2014

- June 9- July 3: Four-week session
- June 9- Aug 1: Eight-week session
- June 16 - July 25: Six-week session
- July 4: Independence Day (Holiday)
- July 7- August 1: 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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General Information

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 new college’s 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 while 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 the 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. The Solari Green Technology Center opens for classes in the fall of 2012, providing classes in Career Technical Education focused on sustainable environmental practices and technology. Enrollment at the Watsonville Center has grown to almost 2000 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 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 Scotts Valley Center opened to better serve the residents of Scotts Valley and San Lorenzo Valley. The center, a modern facility with state-of-the-art classrooms, has easy access from Highway 17. More than 600 students enrolled in the opening semester.

In October 2007, the college opened the Barbara Samper Student Activities Center situated on Soquel Drive opposite Cabrillo College Drive and acquired the old Watsonville Library, adjacent to the Watsonville Center. With the help of a $2.5 million grant from the U.S. Economic Development Agency, the library will be replaced with the new state-of-the-art Industrial Technology Education Center by 2011.

Work has begun on the Arts Education Classrooms project and classrooms for 2D and 3D art opened in fall 2008 and the performance class-rooms, two theatres and recital hall are slated to open in 2009.

Work on the new Health and Wellness Center on the Aptos campus has begun and is expected to open in 2010.

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. During the voyage in 1543 Cabrillo died.

In 1935, the California state legislature designated September 28 as “Cabrillo Day,” commemorating the anniversary of Cabrillo’s exploration in California.
MISSION STATEMENT
Cabrillo College is a dynamic, diverse and responsive educational community dedicated to helping all students achieve their academic, career, and personal development goals.

VISION STATEMENT
Cabrillo College is passionate about developing critical thinking, honing oral and written communication and enhancing global awareness, while cultivating personal and professional responsibility in our students. Exploration, innovation, creativity, and implementation of a variety of teaching methods, including technology literacy, are hallmarks of our approach to learning. We help students of varying skill levels achieve their potential, and consider everyone in the college part of a community of learners who are treated with dignity and respect. Cabrillo College supports a climate of diversity, self-empowerment and sustainability, with a strong sense of social justice.

As an integral part of Santa Cruz County, Cabrillo College is an accessible gateway to prosperity that provides education for all, supporting the local economy and improving economic vitality. We serve students who have goals of transfer, career preparation, basic skills, personal fulfillment and retraining through an inclusive and effective learning environment. Students will leave with greater knowledge and a richer expectation of themselves.

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


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 has defined SLOs for every Career Technical Education degree and certificate, and for every course offered. 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;

Career Technical Education: are designed 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 Commissions of Higher Education. The College adheres to the institutional standards set forth by the Accrediting Commission for Community and Junior Colleges, and 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 offers 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.

Career Technical Education
Career Technical Education courses and programs that prepare students for immediate employment or job advancement.

General Education
General Education courses are designed 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.

Learning 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 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.

CABRILLO EXTENSION
The Cabrillo Extension Office provides fee-supported classes, Motorcycle Safety Training, online classes, special events, Corporate Training, scheduling of college facilities for community and college use.

Cabrillo Extension Classes
Approximately 550 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, lectures, and other special events. Class suggestions from the community are welcome. For information call (831) 479-6331 or visit 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, coaching and consulting services. For information call our hotline at (831) 477-5649 or go to the Corporate Training website at www.cabrillo-corporatetraining.org.

SMALL BUSINESS DEVELOPMENT CENTER
The Central Coast Small Business Development Center (SBDC) offers no cost business counseling, technical assistance, and referral services for businesses in Santa Cruz and the coastal regions of Monterey counties. You do not need to be a Cabrillo College student to obtain services from the SBDC. The center also offers business-related seminars at no or low cost. Counseling services available include business plan development, obtaining loans, marketing and sales, personnel management, financing, bookkeeping systems review, and financial analysis. Services are available in Spanish and English. For more information, call (831) 479-6136 or e-mail the center at sbdc@cabrillo.edu or at www.centralcoastsbdc.org. The SBDC is operated by Cabrillo College under contract with the U.S. Small Business Administration, and Humboldt State University.

The Business & Entrepreneurship Center also provides assistance to businesses in the greater San Francisco Bay Region. The BEC is an initiative of the Workforce and Economic Development Division (WEDD) through the California Community Colleges with the goal of working with private, public and nonprofit resources to build strong, sustainable businesses through training, and technical assistance. The BEC also sponsors the Youth Entrepreneurship Program (YEP) to foster entrepreneurship and business start up for youth ages 14 to 28 years of age.

Call (831) 479-6330 for more information or go to www.buildcalifornia.org

DISTANCE EDUCATION
Just like a traditional face-to-face class, an online class is instructor-led and will have regular lessons each week. The only difference is that they are delivered electronically using the Internet and other software tools. When you take an online class, you log in to a learning management system via the Internet to access and complete your class lectures, assignments, interactive activities and tests to fulfill the course learning objectives. The same learning objectives and content are used for all Cabrillo classes whether it’s fully online, hybrid (online but with some on-campus meetings) or on-campus.

Online learning offers flexible educational opportunities to students who seek alternatives to on-campus classes due to scheduling conflicts, child-care, work, or other commitments. As you contemplate whether online learning is for you, keep in mind that online courses may require more from you, in terms of motivation, discipline, and time.

Students should check their instructor’s web directory page for additional information about how to access the course and whether one or more on-campus meetings are required. You may also check the Schedule of Classes long description for orientation information. The Distance Education website, located at www.cabrillo.edu/services/disted contains abundant information for students interested in this online learning. For more information, contact Francine Van Meter at (831) 479-6191 in the Teaching and Learning Center.

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 some evenings until 6:00 p.m. Information pertaining to evening classes may be obtained from Admissions & Records at (831) 479-6201.

SUMMER SESSION
Summer sessions supplements 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. There may be limitations on out-of-state students, who must meet the same residence qualifications of regular session 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 in four buildings. Classes offered include general education, career technical education (CTE), and transfer level courses in many disciplines. Students may complete all general education requirements at the Center for an A.A./A.S. Degree, CTE certificate, or preparation for transfer. All college enrollment services may be accessed at the Center, as well as tutoring, counseling, financial aid, assessments, health services, library resources, computer labs, transfer and career information. The Enrollment Services office (Admissions & Records and Financial Aid) is open Monday through Thursday, 9 a.m. to 6:00 p.m., and Friday 9 a.m. to 12:00 p.m. The main information number is (831) 786-4700.
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. General education courses are offered that qualify for transfer credit, fulfill requirements for the AA/AS degree, or lead towards certificates of achievement in selected occupational fields. For information, call (831) 477-3400 or go to http://www.cabrillo.edu/services/scottsvall.

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
- Aptos Computer Technology Center, Building 1400, (831) 477-5286
- Watsonville Computer Technology Center, Room WatA310, (831) 786-4703
- Library–Reference Desk, Building 1000, (831) 479-6163
- Math Learning Center, Room LRC1074, (831) 477-5696
- Reading Center, Room LRC1063, (831) 479-6573
- Writing Center, Room LRC1060, (831) 479-6319
- ESL Laboratory, Room LRC1060, (831) 479-6573
- Tutorial Center, Room LRC1080A, (831) 479-6470
- MESA Study Center, Room 714, (831) 479-6503
- Physics/Engineering Learning Center, Room 209 (no phone)
- Watsonville Integrated Learning Center, Room WatA210 (831) 786-4755

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 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. To enroll, a student must have a full or part-time paid or volunteer job, attend a half-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.

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 typing CWEE in the search box 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 to and participation in vocational education programs. To request more information about equal opportunity policies and the filing of complaints, contact:

- Kathleen Welch, Title IX Officer: (831) 477-5077
- Victoria Lewis, ADA Coordinator: (831) 479-6406
- Joe Napolitano, Section 504 Officer: (831) 479-6395
- Loree McCawley, Director of Personnel and Human Resources (Staff Complaints): (831) 479-6217
- Sesario R. Escoto, Student Affairs Office (Student Complaints): (831) 479-6525

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 Beale Street, Suite 7200
  San Francisco, California 94105
  (415) 427-5486-5555, Fax: (415) 486-5570
  ocr_sanfrancisco@ed.gov
PLAN DE ACCION NO DISCRIMINATORIA

Cabrillo College no discrimina a base de identificación con grupos étnicos, nacionalidad de origen, religión, edad, sexo, raza, color, incapacidad mental o física ni orientación sexual en ninguna de sus reglamentaciones, procedimientos o prácticas. Este plan de acción no discriminatoria incluye la admisión y el acceso a los programas y actividades, y el tratamiento y el empleo en los mismos, incluyendo la educación vocacional. Tener limitadas destrezas en el idioma inglés no constituira una barrera para ser admitido o participar en los programas de educación vocacional. Para solicitar más información acerca de nuestras reglamentaciones sobre oportunidad equitativa y para presentar quejas, comunícense con:

Kathleen Welch, Title IX Officer: (831) 477-5077
Victoria Lewis, Coordinadora de ADA: (831) 479-6406
Joe Napolitano, Oficial de la Sección 504: (831) 479-6395
Loree McCawley, Recursos Humanos, (831) 479-6217
Sesario R. Escoto, Oficina de Asuntos Estudiantiles (Reclamos de estudiantes): (831) 479-6525

Puede comunicarse con todos ellos en Cabrillo College, 6500 Soquel Drive, Aptos, CA 95003.

Cabrillo reconoce su obligación de proveer accesibilidad general a los programas para los estudiantes con incapacidades. Comunícense con el Coordinador de la Sección 504 para obtener información sobre la existencia y la ubicación de servicios, actividades y edificios accesibles y para el uso de las personas con incapacidades.

Las preguntas sobre leyes y reglamentaciones federales concernientes a la no discriminación en educación o sobre el cumplimiento de Cabrillo con estas provisiones, pueden dirigirse también a:

Oficina de Derechos Civiles, San Francisco
Departamento de Educación de los EEUU
Old Federal Building
50 Beale Street, Suite 7200
San Francisco, California 94105
(415) 4275486-5555, Fax: (415) 486-5570
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.
The Cabrillo College Foundation has one of the largest scholarship programs in California for community college students and distributed over 1,000 scholarships equaling $659,000 to assist financially needy and academically promising students last year and boasts an endowment for scholarships of $10,073,112, providing permanent scholarship funding for students now and in the future. The Foundation has also pioneered several stellar programs to meet the needs of high-risk populations, including supporting Foster Youth students at Cabrillo with over $66,000 in scholarship support, outreach, and mentor support, women students in need at Cabrillo receive support through the Women’s Educational Success program which awards over $35,000 annually in emergency cash grants for women, and the Cabrillo Advancement Program (CAP), a scholarship and support program designed to increase the academic success of 350 high risk, low income students from local middle schools and high schools. Faculty and staff receive support through our Faculty Grants program, providing $50,000 annually to enhance student learning to approximately 40 instructors each year. In addition, the Cabrillo College Foundation also provides support to over 150 college programs and departments.

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
Admission and Registration

REGISTRATION ENROLLMENT PRIORITY

- Veterans, Foster Youth, Disabled Student Program and Services (DSPS), Extended Opportunity Program and Services (EOPS), and CalWorks.
- Continuing students with 30+ Cabrillo units
- Continuing students with 1-29 Cabrillo units (Freshman)
- New and re-entering students
- Concurrent high school students

Registration dates and times are assigned by the Admissions and Records Office based on this registration priority list and the units completed at Cabrillo College. Student registration dates and times are communicated to students by email and are also listed in a student’s WebAdvisor account.

Beginning with Fall 2014 registration, the following revisions will be in effect for priority registration, in addition to the priority categories listed above:

- Priority registration will be designated specifically for students who enroll in Cabrillo College for the purpose of a degree or certificate attainment, transfer to a four-year college or university, or career advancement.
- Priority will be given in the same order as above but include the requirement that students complete orientation, assessment, developed a student education plan and maintain good academic standing in order to use their priority registration rights.
- New students who do not have a declared major and have not completed assessment, orientation, and the education planning process will follow concurrent high school students.
- The final group eligible to register will be students who are placed on academic progress dismissal or probation for more than two semesters and/or those students who have earned 100 units of degree applicable semester units at Cabrillo.
- Students on academic progress dismissal will not be eligible to register but must see a counselor to determine if they are eligible for any specific semester.
- Exception to the 100 unit limit will be made for students enrolled in the high-unit majors listed below as long as they are making satisfactory progress toward their degree:
  - Astronomy: transferable A.S.
  - Biology: A.S. and transferable A.S.
  - Chemistry: transferable A.A. and A.S.
  - Computer Science: transferable A.S.
  - Dental Hygiene: A.S.
  - Engineering: A.S. and transferable A.S.
  - General Science (Science/General) transferable A.A. and A.S.
  - Geology: transferable A.S.
  - Mathematics: transferable A.S. (not the A.S.-T)
  - Nursing: A.S.
  - Physics: transferable A.S.
  - Radiologic Technology: A.S.
- Units earned at other colleges and universities, from AP, Military, CLEP, etc., will not be considered in determining registration priorities.
- Enrollment in courses and programs may be limited to students meeting properly established prerequisites and co-requisites.
- If a student loses their priority registration based on exceeding the 100-unit limit, being placed on academic progress dismissal for any extenuating circumstances (verifiable accident, illness or other circumstances beyond the control of the student), the student may appeal to have priority registration reinstated.
- Students on academic progress dismissal who demonstrate significant academic improvement may appeal to regain their priority registration. The appeals process will be as follows:
  - Complete the Appeal Petition form and submit it to Admissions and Records,
  - Provide a written statement as to why registration priority and/or BOG fee waiver should be reinstated,
  - Provide documentation as to the extenuating circumstance or significant academic improvement, and
  - Provide completed academic progress report form; including signatures from instructors.
- Complete appeals will be reviewed and a decision will be communicated to the student using the email address listed in our student information system.
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, whom the Board determines would benefit from the educational enrichment opportunities of advanced scholastic or vocational work (courses numbered in the 100 and 200 series are not advanced scholastic or vocational courses). Courses cannot be offered at the high school level. 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.

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. must have 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 courses, 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 with-

II. Special Full-Time Student (more than six 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. must have taken advantage of all the opportunities to enroll in high school 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, the signature of the appropriate district representative is needed.
6. Written approval of a Cabrillo College counselor for students in unaccredited private high schools.

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.

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.

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 & 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.

SPECIAL ADMISSIONS PROCEDURES

Certain programs require special admissions, and students must follow those admissions procedures following admission to the college. Such programs include Dental Hygiene, Nursing, and Radiologic Technology. Other special admissions are required for cohort studies, such as ACES, DBA, Honors, and Puente. Students admitted to any specialized programs must comply with program-specific rules and regulations as set forth in their program materials and handbooks. For more information, see the specific details for the respective programs in the course listings section of the Catalog.

INTERNATIONAL STUDENTS

Admission

All applicants for admission with F-1 status must submit the following documents to the International Student Office by the application deadline. The application deadline for fall semester is July 10. The deadline for spring semester is December 10.

- Completed international student application form (available from the International Student Office or online at www.cabrillo.edu/services/international).
- $60 non-refundable application fee.
- Transcripts of secondary (and post-secondary, if any) school or college work completed. These transcripts must be official and in English.
- Official TOEFL Test result with a score of 480 or higher PBT or 157 CBT, or 54 iBT. An official IELTS result with a score of 5.5 or higher is also acceptable. Students do not need to provide test results if English is their native language or if they completed at least two years of your high school education at a school where English was the primary language. Cabrillo has articulation agreements with some intensive English Programs that would allow students to waive the English proficiency requirement.
- A financial statement for $17056 which indicates the student has the means to support his/her costs of attendance (meaning tuition and living expenses) either from personal, family, sponsor, or governmental sources.
2. Rules and Regulations

- Payment of Tuition: Tuition is due and payable within five days of registering for classes. Registration is not complete until the full tuition is paid.
- 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.
- Medical Insurance: All students with F-1 status are required to have adequate medical insurance. The College provides medical insurance to all F-1 students and the cost is added to their tuition invoice. Students are able to waive coverage if they provide proof of adequate medical insurance coverage from their home country within the first two weeks of the semester.
- Study Load: International students with F-1 status must enroll in and complete at least 12 units per semester. The College must report to the U.S. Department of Homeland Security if a student has withdrawn from college or is taking less than a full program. All new students are required to enroll in CG 51, Introduction to College for International Students during their first semester at the College.
- Employment: F-1 students attending the College are not permitted to work without prior approval. Consult the International Student Office for details and procedures.
- Change of Status: Any change in immigration status must be discussed with the International Student Office.
- Arrival: Students admitted with F-1 status must report to the International Student Office by the date indicated on their I-20 form. Failure to do so may result in the revocation of the I-20 and loss of F-1 status. A mandatory orientation for new students is held 10 days before the beginning of each semester.
- Change of Address: Students must inform the International Student Advisor and the Office of Admissions & Records of all address and telephone changes. A current local address must always be on file at the College.
- Illness: Students must inform the International Student Office of any extended Document Renewal: It is the student’s responsibility to maintain a valid, current passport and I-20 form.
- Housing: Cabrillo College does not offer dormitory housing. 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.
- 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 126. For help, phone (831) 479-6200 or email international@cabrillo.edu.

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**STUDENT SUCCESS AND SUPPORT PROGRAM (formerly Matriculation)**

**The Student Success Process** Cabrillo College enters into a partnership with its students from the time of their initial application to the College until they complete their academic program. The College and the student each have unique roles and responsibilities in this partnership.

Research studies document that there is increased academic success and college completion by students that have completed an orientation to college, assessment for course placement, and the development and adherence to an education plan. These services are therefore required for incoming students per the Student Success Act of 2012.

Students who complete these initial core services (orientation, assessment and educational planning) will receive priority registration as continuing students. Those who do not complete these services will drop to the end of the registration schedule.

The Education Plan, both an initial Abbreviated Education Plan and the later Comprehensive Education Plan, will need to be completed by the end of the third semester or after completing 15 degree-applicable units.

Students will need to think about their career goals early in their college process. Assistance with this can be received through a career exploration class or through other online options.

Identifying a career goal will help the student identify an Educational Goal. These include an Associate in Arts or Associate of Science degree (A.A. or A.S.), transfer as a junior to a four-year university, either with or without an accompanying A.A./A.S. degree, and a career/technical certificate.

After the career and educational goals are identified, students will need to develop an Education Plan based on their Course of Study or Major. The Education Plan will identify the road map on how and when to complete courses that lead to the degree/certificate and educational goal.

Staff in the Counseling and Transfer Center provides workshops on the components of an Education Plan so that when it is time for the development of the Education Plan with a counselor, the student is better informed, more focused and can move to the next step.

Students will have a limit of 100 units before they lose their registration priority and certain types of financial aid. An AA/AS degree is 60 units. There are some higher unit degrees that have extra requirements and prerequisite courses (e.g., engineering, health sciences) which may require more than the traditional 60 units. Some students also change their major which can also lead to a higher total of units. Working with a counselor to take the correct courses in the correct order will prevent a student from losing some of the college benefits such as priority registration and financial aid.

Follow-up services are another part of the College’s commitment to student success. Successful students take advantage of these services: free academic tutoring, math, English and reading labs, office hours with the instructors, and a real understanding that students that study an average of two hours per each hour in class succeed and graduate at a higher rate.

Cabrillo College and its faculty and staff understand that some students are the first in their family to attend college. That reality brings additional challenges, as sometimes that experience can feel isolating and unfamiliar. That is even one more reason to become involved and utilize the services the College provides to keep the student on track. College is an exciting and life-changing event. Work with us to support you in your success.
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 you enrolling in courses that match your abilities and skills. These are determined through different placement assessments in math, reading, English, and ESL. These assessments are taken in the Assessment Center’s computer lab. Assessments are offered at the main campus in Aptos and the Watsonville Center. Additional considerations such as previous coursework, grades, and experience are included in the calculation of the score and course placement. These are referred to as multiple measures. Placement assessment is needed for all new students.

Note: Some scores on an assessment/placement test may indicate the need for further assessment for possible learning disabilities. There are excellent campus resources for these services through the Learning Skills Program in Room 1073 upstairs in the library or at (831) 479-6220.

The Assessment Center is located in Student Activities Center West (SAC West), Room 200 on the Aptos Campus. Assessment dates, times and locations are online as are practice tests for the different math tests. See the Assessment Center website for non-Cabrillo assessment results that we will accept in lieu of our assessment. For more information call (831) 479-6165 or go online to www.cabrillo.edu/services/assessment.

PREREQUISITES AND COREQUISITES

Some courses may require that you read, write, or analytically compute at a certain level to be successful. These skills or knowledge are usually gained through a course called a prerequisite or corequisite course. Some pre and co-requisites can be satisfied by assessing at a certain level on the placement test. This is another reason to take the placement tests seriously. A prerequisite needs to be successfully completed before enrolling in the desired course. The co-requisite course is taken at the same time as the desired course. If you have already satisfied the required pre or corequisite through other documented means or successfully completed the pre or co-requisite course at another college, you must submit an official transcript to Admissions and Records to have the verification entered onto your college record. See this Catalog, the Schedule of Classes, and the Cabrillo webpage, www.cabrillo.edu for more information. A counselor can also assist you with information on prerequisites and corequisites.

If you believe you already have the skill level offered in the pre or corequisite course, see the Challenge Process below.

ORIENTATION

Orientation to college is one of three core services that are required of all first-time students. The remaining two are assessment for course placement and educational planning. All community colleges require and provide these services. Orientation is provided in several ways at Cabrillo: online through the College’s website and through several Counseling and Guidance (CG) courses. The information in orientation familiarizes students with the many college services and programs that support ongoing academic success. Orientation additionally provides an introduction to the world of community college, which can be overwhelming and surprising to many students. College is very different than high school and students can make some serious mistakes in how they approach their new roles and responsibilities if they are unaware of these differences. Students who understand the college culture and its expectations have a much stronger chance of completing their Educational Goals and Program of Study. Students who have completed orientation at another college and can document completion of this requirement do not need to repeat orientation at Cabrillo. More information can be found at www.cabrillo.edu/services/matriculation or through the Assessment Office.

EDUCATIONAL ADVISING AND COUNSELING

After completing orientation, students need to assess for math and English course placement. The results of these placement tests will be the beginning of the student’s educational planning process and will result in an Education Plan or “Ed Plan.” If a student has assessment scores from a previous college, an official copy should be brought to a counseling appointment for comparable course placement at Cabrillo. The basics of an Ed Plan can be acquired in an Ed Plan workshop offered through the Transfer and Career Center and the Counseling Department. After completing the workshop, a student can make a 30 minute appointment to see a counselor. The content of the Ed Plan workshop includes information on how to identify a career goal. This larger goal helps a student then identify an Educational Goal such as earning an associates degree (60 units), a career certificate (fewer units), or transferring as a junior (60 units) to a four-year university. With that Educational Goal identified, a student can then narrow the focus to a particular Course of Study or Major. The Ed Plan is then developed with the required math and English courses, general education and elective courses, and those additional courses that specifically support the Program of Study or Major. A student can begin with a one or two semester “Abbreviated Ed Plan” and then when more clear on the Major or Program of Study, work with a counselor to complete a Comprehensive Education Plan. This is the road map, semester-by-semester, for completion of college in a timely and cost-effective manner. The expectation is that a Comprehensive Ed Plan will either be completed after 15 degree-applicable units have been earned or by the end of the third semester. An Ed Plan will allow the student to register for classes without needing to see a counselor, unless changes need to be made.

EXEMPTION FROM STUDENT SUCCESS/MATRICULATION SERVICES

Students that already have completed an associates degree or higher are not required to complete these services again. If a student is transferring to Cabrillo from another college and has completed these services at the former college then they are exempt from completing them here. Assessment scores from a previous college are required for comparable course placement at Cabrillo. Students should bring those scores to a counseling appointment. Students are always welcome to participate in any of these services.

THE CHALLENGE PROCESS

The Challenge Process is a way to demonstrate that you have acquired the skills and knowledge needed for a particular level of academic work. You use the Challenge Process to skip over a pre or co-requisite course by showing through documentation, academic records or other verifiable means that the skills and knowledge have already been acquired. The challenge process is not to be used because you are displeased with your assessment scores nor for classes that are in progress.

Forms for challenging pre- or corequisites are available online at www.cabrillo.edu/services/matriculation/.

PROBATION

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 before you reach this point to learn about additional resources. See this Catalog, the Schedule of Classes or the Cabrillo website, www.cabrillo.edu for more information.

REGISTRATION

Application for Admission

Applications for Admission are available on the Cabrillo College website (www.cabrillo.edu). 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 active for one year for college students regardless of whether the student registers. 

Note: Concurrent high school students must submit an application each semester of attendance. 

Registration

After an application has been submitted and processed by Admissions & 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. 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 outlined on page 16.

Majors/Programs 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, Radiological Technology, and the Honors Transfer Program.

Transcripts of Previous Education

Applicants who have attended high school within the past five years are required to send an official transcript. If the applicant has attended other collegiate institutions other than Cabrillo College, an official transcript showing all coursework is required. Students are allowed to register in some courses without transcripts on file, although official transcripts are required to award certificates of achievement, skills certificates, associate degrees, financial aid grade point average verification and to verify that the student has met prerequisite requirements. All transcripts submitted are permanent property of Cabrillo College and copies of these transcripts cannot be sent elsewhere.

Advising

To assist students in attaining their educational goals, the College provides academic information and counseling services.

Add Period

Students may register for full-term courses during the Add Period, which occurs during the first two weeks of instruction in the fall or spring semester. Students may register for short-term courses until the day before the first class meeting. Consult the summer or winter session Schedule of Classes for the late registration dates of these terms. 

In order to add a course once the class has begun, students use the Add Code received from the instructor to register for the course in WebAdvisor. No addition of classes may be made after the last day to add indicated in the current Schedule of Classes.

A student who drops a full-term course after the second week will receive an academic mark in fall or spring. Short-term and summer or winter session courses have much shorter deadlines. Consult the instructor or Admissions & Records for dates.

Special Studies

Special Studies (Subject 80S, 80SB, 80SC) extends or deepens a student’s knowledge of a particular field. Students should meet with a counselor to determine transferability of special study courses. See “Subject/Special Studies” section on page 281 of this Catalog.

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 degree 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. A cohort of all certificate-, degree-, and transfer-seeking first-time, full-time students who began in Fall 2004 were tracked over a three-year period. Their completion rate was 24%; these students earned a degree or certificate, or completed 56 transferable units. Of those students who did not complete a degree, 21% enrolled at another post-secondary institution. 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 2003 to spring 2006. 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 2004 to spring 2006, are transfer students. Adding the completion and transfer rates together shows that 45% of the cohort completed or transferred within three years. http://srtk.cccco.edu/411/04index.htm

Change of Major

A student may change their major using WebAdvisor. 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 Kinesiology, Art, and Music 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 $46 per unit for all California residents. For a fee schedule, go to the Cabrillo website: www.cabrillo.edu.

Student Health Services Fee

All students will be charged a health services fee each semester. Student Health Services provides students with wellness and acute illness visits; first aid; health, personal, and crisis counseling; referrals to community resources; health education and information; low-cost TB, strep throat, STI, and pregnancy tests; low-cost immunizations and selected laboratory tests; free over-the-counter and low-cost selected prescription medications; blood pressure checks; free condoms; and low-cost work- or school-required physical exams.

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 the student health services 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

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 $4 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 vehi-
2. Parking is allowed in any lot except red curb zones, staff and vis-
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

Children's Center Fund
An optional $2 fee was approved by student government to assist Cabrillo College students with campus childcare. Every $2 collected pro-

Associated Students of Cabrillo College (ASCC)
Students are members of the Associated Students of Cabrillo College. There is a Student Activities Card (SAC) fee of $10.00 that is automati-

Out-of-State Students/Nonresident Student Fees
Students who have not established California residency are also charg-

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
3. A reduced unit load within the 10% deadline for short-term cours-
4. Fees collected in error.

If a student is eligible for a refund and the fees were paid by a feder-

NOTE: Only students who officially drop their courses by the appro-

Instructional Materials Policy
Cabrillo College may require students enrolled in credit and non-cred-

Textbooks and Supplies
Students must furnish their own textbooks, workout clothes for phys-

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 $25.

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 require-

Applications for cross enrollment are available from Admissions & 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>P</td>
<td>Pass, satisfactory or better</td>
<td>0</td>
</tr>
<tr>
<td>NP</td>
<td>No Pass, 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)</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. Pass (P) no pass (NP), and grades earned in non-degree applicable courses are not included in calculating the grade point average.

Pass/No Pass Grading System

The purpose of pass/no pass 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 pass/no pass mode.

The following regulations implement these two objectives:

1. A pass/no pass 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 pass/no pass 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 pass/no pass 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 pass/no pass only.
4. A pass grade is equivalent to a grade of "C" or better, indicating satisfactory completion of course requirements. A no pass 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 pass/no pass 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 & 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 & Records, for an extension due to unusual circumstances. The "I" shall not be used in calculating units attempted or for grade points.
“W” Grades

If a student withdraws from a course during the first two 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 third week of a semester 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 his/her permanent records.

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" or "F" grade.

NOTE: In accordance with state regulations, student withdrawals are restricted to a total of four withdrawals per course.

“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 Pass, Incomplete, and Withdrawal grades will place a student on probation.

Transcript of Cabrillo Work

Students may request an official transcript of his/her record to be prepared by the Admissions & Records Office by submitting a request online, either from the A&R website or through the student’s WebAdvisor account. Two transcripts of the student’s record will be processed without charge. After the first two, there is a charge. Students who need transcripts within three working days pay additional rush fees. 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.”

“Honors Scholar” will be designated on the transcript if student has completed 15 units of honors courses and is a participant in the Honors Transfer Program. See page 37 for more information.

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. Although not every course may be credited by examination, a course to be credited by exam must be currently available and be on a list of appropriate courses kept in the office of the Vice President, Instruction, and the Office of Instruction web page.

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. In special circumstances involving sequential courses in a transfer program or involving certain requirements in an occupational program, a student may appeal to the Academic Council to set aside the 12-unit requirement. Units for which credit is awarded by examination shall not be counted in determining the 12 semester hours in residence toward an A.A./A.S. Degree, nor are they considered part of a semester load.

3. Students who fulfill specific requirements under formal articulation agreements with area high schools and/or Regional Occupational Programs (ROP) may be granted credit without taking further examinations at Cabrillo College and without completing units in residence.

4. The number of units to be granted is not greater than that listed for the course in the Cabrillo College Catalog.

5. Credit has not been previously granted at the same or more advanced level if the course is in a departmental sequence based on prerequisites. Furthermore, a student may seek credit for only one course in a sequence of courses.

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 any Cabrillo Admissions & Records office. The student pays for the units as for other units of credit, prior to taking the exam.

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, which will then be recorded on the student’s transcript.
The student’s grade shall be recorded on his/her transcript, even if it is substandard. The student shall indicate before taking the examination whether s/he wishes to exercise a Pass/No Pass option. An examination may not be repeated.

The student’s transcript shall be clearly annotated to reflect that credit was earned by examination.

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.

**EXTERNAL EXAMINATIONS:**
**ADVANCED PLACEMENT (AP)**
**INTERNATIONAL BACCALAUREATE (IB)**
**CLEP**

Cabrillo College students will receive credit for the following external examinations toward an A.A./A.S. degree: Advanced Placement (AP) examinations given by the College Entrance Examination Board with scores of 3, 4, or 5; International Baccalaureate (IB) tests taken at the HL (High Level) and CLEP scores (see chart below). To use IB to fulfill IGETC requirements, scores must be 5, 6, or 7. Students must send an official copy of the AP, IB or CLEP results to Cabrillo if they are not posted on their official high school transcript. It is the responsibility of the student to see a counselor and request the use of AP, IB or CLEP credit toward a Cabrillo College degree.

To use external examination results for completion of GE requirements for transfer using either the IGEC or CSU GE patterns, the student must request GE Certification from Cabrillo upon transfer. To determine how credits will be used at the four-year university 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 external examination scores and take the equivalent college course. Credit will be granted for general education certification according to the following list.

**Advanced Placement Exam (AP) for CSU and Cabrillo**

<table>
<thead>
<tr>
<th>College Board AP Exam</th>
<th>Cabrillo/CSU Units¹ Earned</th>
<th>Cabrillo/CSU Units² for GE</th>
<th>GE Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art History</td>
<td>6</td>
<td>3</td>
<td>C1 or C2</td>
</tr>
<tr>
<td>Biology</td>
<td>6</td>
<td>4</td>
<td>B2 + B3</td>
</tr>
<tr>
<td>Calculus AB</td>
<td>3¹</td>
<td>3¹</td>
<td>B4</td>
</tr>
<tr>
<td>Calculus BC</td>
<td>6¹</td>
<td>3¹</td>
<td>B4</td>
</tr>
<tr>
<td>Calculus BC/AB subscore</td>
<td>3¹</td>
<td>3¹</td>
<td>B4</td>
</tr>
<tr>
<td>Chemistry</td>
<td>6</td>
<td>4</td>
<td>B1 + B3</td>
</tr>
<tr>
<td>Chinese Language &amp; Culture</td>
<td>6</td>
<td>3</td>
<td>C2</td>
</tr>
<tr>
<td>Comparative Gov’t</td>
<td>3</td>
<td>3</td>
<td>D8</td>
</tr>
<tr>
<td>Computer Science A</td>
<td>3¹</td>
<td>0</td>
<td>N/A</td>
</tr>
<tr>
<td>Computer Science AB</td>
<td>6¹</td>
<td>0</td>
<td>N/A</td>
</tr>
<tr>
<td>English: Language</td>
<td>6</td>
<td>3</td>
<td>A2</td>
</tr>
<tr>
<td>English Literature</td>
<td>6</td>
<td>5</td>
<td>A2 + C2</td>
</tr>
<tr>
<td>Environmental Science</td>
<td>4¹</td>
<td>4</td>
<td>B1 + B3</td>
</tr>
<tr>
<td>European History</td>
<td>6</td>
<td>3</td>
<td>C2 or D6</td>
</tr>
<tr>
<td>French: Language</td>
<td>6</td>
<td>3</td>
<td>C2</td>
</tr>
<tr>
<td>French Literature</td>
<td>6</td>
<td>3</td>
<td>C2 (FA 09°)</td>
</tr>
<tr>
<td>German Language</td>
<td>6</td>
<td>3</td>
<td>C2</td>
</tr>
</tbody>
</table>

---

*If test was taken prior to FA 09, 6 units of GE awarded for CSU/Cabrillo  
** The ES exam can clear either B2 or B1 plus B3 through F09 - after that date only B1 + B3

The following restrictions apply:
1. These units count toward eligibility for admission. The units may not all apply toward certification of the corresponding GE-Breadth area.
2. Areas of GE-Breadth (A1 through E) are defined in CSU Executive Order 1033. Areas of American Institutions (US-1 through US-3) are set forth in Sections 1A and 1B of CSU Executive Order 405.
3. Students seeking certification in GE-Breadth prior to transfer must have passed the test before this date.
4. If a student passes more than one AP exam in calculus or computer science, only one examination may be applied to the baccalaureate within each area.
5. If a student passes more than one AP exam in physics, only 6 units of credit may be applied to the baccalaureate, and only 4 units of credit may be applied to a certification in GE-Breadth.
### Advanced Placement (AP) Exam for IGETC

<table>
<thead>
<tr>
<th>AP Exam</th>
<th>IGETC Area fulfilled</th>
<th>Course Equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art History</td>
<td>3A or 3B</td>
<td>AH 11</td>
</tr>
<tr>
<td>Biology</td>
<td>5B and 5C</td>
<td>BIO 11A</td>
</tr>
<tr>
<td>Calculus AB</td>
<td>2A</td>
<td>MATH 5A</td>
</tr>
<tr>
<td>Calculus BC</td>
<td>2A</td>
<td>MATH 5B</td>
</tr>
<tr>
<td>Calculus BC/AB subscore</td>
<td>2A</td>
<td>MATH 5A</td>
</tr>
<tr>
<td>Chemistry</td>
<td>5A and 5C</td>
<td>CHEM 2</td>
</tr>
<tr>
<td>Chinese Language &amp; Culture</td>
<td>3B + 6A</td>
<td>No Equivalent</td>
</tr>
<tr>
<td>Comparative Gov’t</td>
<td>4H</td>
<td>PS 2</td>
</tr>
<tr>
<td>English: Language</td>
<td>1A</td>
<td>ENGL 1A</td>
</tr>
<tr>
<td>English Literature</td>
<td>1A or 3B</td>
<td>ENGL 1A or 1B</td>
</tr>
<tr>
<td>Environmental Science</td>
<td>5A and 5C</td>
<td>ES 10 + 10L</td>
</tr>
<tr>
<td>European History</td>
<td>3B or 4F</td>
<td>HIST 4B</td>
</tr>
<tr>
<td>French: Language</td>
<td>3B + 6A</td>
<td>FR 3 or 4</td>
</tr>
<tr>
<td>French Literature</td>
<td>3B + 6A</td>
<td>FR 25 or 39C</td>
</tr>
<tr>
<td>German Language</td>
<td>3B + 6A</td>
<td>GRMN 3 or 4</td>
</tr>
<tr>
<td>Human Geography</td>
<td>4E</td>
<td>No Equivalent</td>
</tr>
<tr>
<td>Italian Language &amp; Culture</td>
<td>3B + 6A</td>
<td>ITAL 3</td>
</tr>
<tr>
<td>Japanese Language &amp; Culture</td>
<td>3B + 6A</td>
<td>No Equivalent</td>
</tr>
<tr>
<td>Latin: Literature</td>
<td>3B + 6A</td>
<td>No Equivalent</td>
</tr>
<tr>
<td>Latin: Vergil</td>
<td>3B + 6A</td>
<td>No Equivalent</td>
</tr>
<tr>
<td>Macroeconomics</td>
<td>4B</td>
<td>ECON 1A</td>
</tr>
<tr>
<td>Microeconomics</td>
<td>4B</td>
<td>ECON 1B</td>
</tr>
<tr>
<td>Physics B*</td>
<td>5A and 5C</td>
<td>PHYS 2A</td>
</tr>
<tr>
<td>Physics C (electric/magnetism)</td>
<td>5A and 5C</td>
<td>PHYS 11</td>
</tr>
<tr>
<td>Physics C (mechanics)</td>
<td>5A and 5C</td>
<td>PHYS 11</td>
</tr>
<tr>
<td>Psychology</td>
<td>4I</td>
<td>PSYCH 1</td>
</tr>
<tr>
<td>Spanish Language</td>
<td>3B + 6A</td>
<td>SPAN 3 or 4</td>
</tr>
<tr>
<td>Spanish Literature</td>
<td>3B + 6A</td>
<td>SPAN 25 or 26</td>
</tr>
<tr>
<td>Statistics</td>
<td>2A</td>
<td>MATH 12</td>
</tr>
<tr>
<td>US Gov’t &amp; Politics</td>
<td>4H</td>
<td>PS 1</td>
</tr>
<tr>
<td>U.S. History</td>
<td>3B or 4F</td>
<td>HIST 17B</td>
</tr>
<tr>
<td>World History</td>
<td>3B or 4F</td>
<td>HIST 2A or 2B</td>
</tr>
</tbody>
</table>

*If test was taken prior to FA 09, 6 units of GE awarded for CSU/Cabrillo

The following restrictions apply:

1. At most UCs additional credit will not be granted if a student takes the equivalent course.
2. The Environmental Science, Physics C (electric/magnetism), Physics C (mechanics)-3 sem. or 4 qtr. units may be applied toward IGETC. Therefore, students who complete these exams will be required to complete at least 4 sem. or 5 qtr. units to satisfy the minimum required units for IGETC Area 5.

### College-Level Examination Program (CLEP) for CSU and Cabrillo

<table>
<thead>
<tr>
<th>Exam</th>
<th>Required Score</th>
<th>Cabrillo/CSU Units</th>
<th>GE Units</th>
<th>GE Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Government</td>
<td>50</td>
<td>3</td>
<td>3</td>
<td>D8</td>
</tr>
<tr>
<td>American Literature</td>
<td>50</td>
<td>3</td>
<td>3</td>
<td>C2</td>
</tr>
<tr>
<td>Analyzing and Interp. Lit</td>
<td>50</td>
<td>3</td>
<td>3</td>
<td>C2</td>
</tr>
<tr>
<td>Biology</td>
<td>50</td>
<td>3</td>
<td>3</td>
<td>B2</td>
</tr>
<tr>
<td>Calculus</td>
<td>50</td>
<td>3</td>
<td>3</td>
<td>B4</td>
</tr>
<tr>
<td>Chemistry</td>
<td>50</td>
<td>3</td>
<td>3</td>
<td>B1</td>
</tr>
<tr>
<td>College Algebra</td>
<td>50</td>
<td>3</td>
<td>3</td>
<td>B4</td>
</tr>
<tr>
<td>College Algebra/Trig</td>
<td>50</td>
<td>3</td>
<td>3</td>
<td>B4</td>
</tr>
<tr>
<td>English Literature</td>
<td>50</td>
<td>3</td>
<td>3</td>
<td>C2</td>
</tr>
<tr>
<td>Financial Accounting</td>
<td>50</td>
<td>3</td>
<td>0</td>
<td>N/A</td>
</tr>
<tr>
<td>French Level I</td>
<td>50</td>
<td>6</td>
<td>0</td>
<td>N/A</td>
</tr>
<tr>
<td>French Level II</td>
<td>59</td>
<td>12</td>
<td>3</td>
<td>C2</td>
</tr>
<tr>
<td>German Level I</td>
<td>50</td>
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<td>0</td>
<td>N/A</td>
</tr>
<tr>
<td>German Level II</td>
<td>60</td>
<td>12</td>
<td>3</td>
<td>C2</td>
</tr>
<tr>
<td>History, United States I</td>
<td>50</td>
<td>3</td>
<td>3</td>
<td>D6 + US-1</td>
</tr>
<tr>
<td>History, United States II</td>
<td>50</td>
<td>3</td>
<td>3</td>
<td>D6 + US-1</td>
</tr>
<tr>
<td>Human Growth &amp; Devel.</td>
<td>50</td>
<td>3</td>
<td>3</td>
<td>E</td>
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<tr>
<td>Humanities</td>
<td>50</td>
<td>3</td>
<td>3</td>
<td>C2</td>
</tr>
<tr>
<td>Info Syst. &amp; Comp. App</td>
<td>50</td>
<td>3</td>
<td>0</td>
<td>N/A</td>
</tr>
<tr>
<td>Intro to Educ. Psych</td>
<td>50</td>
<td>3</td>
<td>0</td>
<td>N/A</td>
</tr>
<tr>
<td>Intro Business Law</td>
<td>50</td>
<td>3</td>
<td>0</td>
<td>N/A</td>
</tr>
<tr>
<td>Intro Psychology</td>
<td>50</td>
<td>3</td>
<td>3</td>
<td>D9</td>
</tr>
<tr>
<td>Intro to Sociology</td>
<td>50</td>
<td>3</td>
<td>3</td>
<td>D0</td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>50</td>
<td>3</td>
<td>3</td>
<td>B1 or B2</td>
</tr>
<tr>
<td>Pre-Calculus</td>
<td>50</td>
<td>3</td>
<td>3</td>
<td>B4</td>
</tr>
<tr>
<td>Principles of Acct</td>
<td>50</td>
<td>3</td>
<td>0</td>
<td>N/A</td>
</tr>
<tr>
<td>Princ. of Macroecon</td>
<td>50</td>
<td>3</td>
<td>3</td>
<td>D2</td>
</tr>
<tr>
<td>Princ. of Management</td>
<td>50</td>
<td>3</td>
<td>0</td>
<td>N/A</td>
</tr>
<tr>
<td>Princ. of Marketing</td>
<td>50</td>
<td>3</td>
<td>0</td>
<td>N/A</td>
</tr>
<tr>
<td>Princ. of Microecon</td>
<td>50</td>
<td>3</td>
<td>3</td>
<td>D2</td>
</tr>
<tr>
<td>Spanish’ Level I</td>
<td>50</td>
<td>6</td>
<td>0</td>
<td>N/A</td>
</tr>
<tr>
<td>Spanish’ Level II</td>
<td>63</td>
<td>12</td>
<td>3</td>
<td>C2</td>
</tr>
<tr>
<td>Trigonometry</td>
<td>50</td>
<td>3</td>
<td>3</td>
<td>B4</td>
</tr>
<tr>
<td>Western Civ I</td>
<td>50</td>
<td>3</td>
<td>3</td>
<td>C2 or D6</td>
</tr>
<tr>
<td>Western Civ II</td>
<td>50</td>
<td>3</td>
<td>3</td>
<td>D6</td>
</tr>
</tbody>
</table>

The following restrictions apply:

1. If a student passes more than one CLEP test in the same language other than English (e.g., two exams in French), then only one examination may be applied to the baccalaureate. For each test in a language other than English, a passing score of 50 is considered “Level I” and earns six units of baccalaureate credit; the higher score listed for each test is considered “Level II” and earns additional units of credit and placement in Area C2 of GE Breadth, as noted.

Note: CLEP may not be used for IGETC
### International Baccalaureate (IB) Exam for CSU and Cabrillo

<table>
<thead>
<tr>
<th>Exam</th>
<th>Required Score</th>
<th>Earned Units</th>
<th>GE Units</th>
<th>GE Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology HL</td>
<td>5</td>
<td>6</td>
<td>3</td>
<td>B2</td>
</tr>
<tr>
<td>Chemistry HL</td>
<td>5</td>
<td>6</td>
<td>3</td>
<td>B1</td>
</tr>
<tr>
<td>Economics HL</td>
<td>5</td>
<td>6</td>
<td>3</td>
<td>D2</td>
</tr>
<tr>
<td>Geography HL</td>
<td>5</td>
<td>6</td>
<td>3</td>
<td>D5</td>
</tr>
<tr>
<td>History HL (any region)</td>
<td>5</td>
<td>6</td>
<td>3</td>
<td>C2 or D6</td>
</tr>
<tr>
<td>Language A1 HL (any except English)</td>
<td>4</td>
<td>6</td>
<td>3</td>
<td>C2</td>
</tr>
<tr>
<td>Language A2 HL (any except English)</td>
<td>4</td>
<td>6</td>
<td>3</td>
<td>C2</td>
</tr>
<tr>
<td>Language B1 HL (any language)</td>
<td>4</td>
<td>6</td>
<td>0</td>
<td>N/A</td>
</tr>
<tr>
<td>Mathematics HL</td>
<td>4</td>
<td>6</td>
<td>3</td>
<td>B4</td>
</tr>
<tr>
<td>Physics HL</td>
<td>5</td>
<td>6</td>
<td>3</td>
<td>B1</td>
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<tr>
<td>Psychology HL</td>
<td>5</td>
<td>3</td>
<td>3</td>
<td>D9</td>
</tr>
<tr>
<td>Theatre HL</td>
<td>4</td>
<td>6</td>
<td>3</td>
<td>C1</td>
</tr>
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</table>

### International Baccalaureate (IB) Exam for IGETC

<table>
<thead>
<tr>
<th>Exam</th>
<th>Required Score</th>
<th>Earned Units</th>
<th>IGETC Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology HL</td>
<td>5</td>
<td>3</td>
<td>5B (without lab)</td>
</tr>
<tr>
<td>Chemistry HL</td>
<td>5</td>
<td>3</td>
<td>5A (without lab)</td>
</tr>
<tr>
<td>Economics HL</td>
<td>5</td>
<td>3</td>
<td>4B</td>
</tr>
<tr>
<td>Geography HL</td>
<td>5</td>
<td>3</td>
<td>4E</td>
</tr>
<tr>
<td>History HL (any region)</td>
<td>5</td>
<td>3</td>
<td>3B or 4F</td>
</tr>
<tr>
<td>Language A1 HL (any except English)</td>
<td>5</td>
<td>3</td>
<td>3B and 6A</td>
</tr>
<tr>
<td>Language A2 HL (any except English)</td>
<td>5</td>
<td>3</td>
<td>3B and 6A</td>
</tr>
<tr>
<td>Language A1 HL (any language)</td>
<td>5</td>
<td>3</td>
<td>3B</td>
</tr>
<tr>
<td>Language A2 HL (any language)</td>
<td>5</td>
<td>3</td>
<td>3B</td>
</tr>
<tr>
<td>Language B HL (any language)</td>
<td>5</td>
<td>3</td>
<td>6A</td>
</tr>
<tr>
<td>Mathematics HL</td>
<td>5</td>
<td>3</td>
<td>2A</td>
</tr>
<tr>
<td>Physics HL</td>
<td>5</td>
<td>3</td>
<td>5A (without lab)</td>
</tr>
<tr>
<td>Psychology HL</td>
<td>5</td>
<td>3</td>
<td>4I</td>
</tr>
<tr>
<td>Theatre HL</td>
<td>5</td>
<td>3</td>
<td>3A</td>
</tr>
</tbody>
</table>

The following restrictions apply:
1. The IB curriculum offers language at various levels for native and non-native speakers. Language B courses are offered at the intermediate level for non-natives. Language A1 and A2 are advanced courses in literature for native and non-native speakers, respectively.

### ARTICULATION WITH FOUR-YEAR UNIVERSITIES

The Cabrillo College Articulation Office, Building 100, 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: go.cabrillo.edu/transferinfo.

### CREDIT THROUGH HIGH SCHOOL ARTICULATION

Cabrillo College will grant college credit for courses formally articulated with area high schools in occupational/career areas where articulation agreements have been signed between high schools and Cabrillo College. Upon enrolling at Cabrillo College, students who have met the specific conditions of the articulation agreement may petition through the Articulation Office. The students’ high school instructors will provide agreed upon eligibility information for the college credit. The forms necessary to petition for credit are available at go.cabrillo.edu/getcredit4highschool.

In addition, most area high schools have agreements with Cabrillo College for course placement in foreign language and math, based on the level completed in high school. These placement agreements are available at the same website above.

### REPEITION OF COURSES

A student may repeat a course, which is not designated as a repeatable course, in which a grade lower than a “C” has been received. Once the student has received a satisfactory grade (A, B, C or P), within the allowable three enrollments, he or she may not repeat the class again. Up to two substandard grades will be disregarded in calculating grade point average. A student may qualify to repeat a course after receiving a satisfactory grade under separate regulations. An additional enrollment may be permitted on a petition basis for extenuating circumstances.

When any course is repeated, the permanent academic record shall be annotated in such a manner that all work remains legible on the academic transcript insuring a true and complete academic history. The first satisfactory grade shall be used in calculating grade point average, unless stated otherwise.

Petitions to repeat a course beyond the allowable enrollments are available online or in the Admissions & Records Office and based on the following exceptions:

Courses may be repeated for credit after a student has received a satisfactory grade (A, B, C or P), if one of the following is true:

a) A significant lapse of time of at least three years has occurred since the last passing grade was attained. In addition, student must meet one of the two requirements below:
   1. The district has established a recency pre-requisite for a course or
   2. Another institution of higher education to which the student seeks to transfer has established a recency requirement which the student will not be able to satisfy without repeating the course in question.

b) A course is a requisite for a next course in a sequence and a repeat is needed to refresh skills.

b) Students may repeat a portion of a variable unit open-entry/open-exit course as many times as necessary to complete the entire curriculum of the course one time as described in the course outline of record.

c) There is an extenuating circumstance beyond the student’s control which has been verified by the division administrator.
d) Students may repeat cooperative work experience courses for a total of 16 semester units. General work experience courses can be repeated for up to six semester units of credit. Occupational work experience courses can be repeated up to 8 units of credit per semester. The combination of both types of work experience classes cannot exceed 16 units total. The grade received each time shall be included for purposes of calculating the student’s GPA.

e) Students with a disability may repeat an approved class for students with disabilities any number of times based on an individual determination that such repetition is required as a disability-related accommodation for that student.

f) Students may repeat a course to meet legally mandated training requirements, after providing documentation of the requirements. Such courses may be repeated for credit any amount of time.

g) Students may repeat a course as a result of a significant change in industry or licensure standards when repetition of the course is necessary for employment or licensure. Students must provide documents certifying the significant change in industry or licensure standards necessitating course repetition.

Repetition is permitted for students with verified disabilities. Course repetition is permitted in specific special classes created for and funded by DSPS for students with disabilities under the following circumstances:

a) When continuing success of the student in other general and/or special classes is dependent on additional repetitions of a specific special class;

b) When additional repetitions of a specific special class are required for the student to meet the performance criteria of that class;

c) When additional repetitions of a specific special class are essential to completing a student’s preparation for enrollment into other courses which meet the requirements of a student’s educational objectives. Grades and units will count for repetitions when meeting the above conditions.

Repetitions of adaptive physical education are allowed, provided the student participates in at least one additional credit course that is not a physical education class and that is within the general offerings of the college, and if the student makes progress towards the stated education goal as documented in the Individual Educational Plan. Students may enroll in adaptive physical education for credit a total of four times. Subsequent repetitions will be offered as non-credit classes. Grades and units will count at most, four times.

Repeating a course that is classified as repeatable may be repeated based on the following three criteria:

a) The repetition is necessary to meet major requirements of CSU or UC for completion of a bachelor’s degree.

b) Intercollegiate athletics

c) Intercollegiate academic or vocational competition.

Enrollment in repeatable courses is limited to no more than four times per course. All repeatable courses shall be published in the College Catalog each year. When a course is repeated pursuant to this section, the grade received each time shall be included for purposes of calculating the student’s grade point average.

Students enrolled in non-repeatable courses or re-enrolling in repeatable courses in excess of what is stated in the College Catalog will be officially dropped from those courses.

Repetition of Courses for Financial Aid Recipients

The Financial Aid Office is required to monitor courses students have repeat during their entire time at Cabrillo College. Financial Aid students may only receive federal financial aid for one repeat of a previously passed course (with grades of A, B, C, NP, NC or W). For financial aid purposes, a grade of D or better is considered a passing grade. Inquiries about this policy should be addressed with the Financial Aid Office.

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 “NP”);

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 Enrollment Services, 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 records, 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,” and “NP” have been recorded, reaches or exceeds 50 percent.
OVERLAPPING ENROLLMENTS

A student may not enroll in two or more sections of the same credit course during the same term unless the length of the course provides that the student is not enrolled in more than one section at any given time.

OVERLAPPING ENROLLMENTS

The only instance for overlapping courses that will be considered shall be for cases of overlap for 10 minutes or less per week.

- A student may enroll in two or more courses where the meeting times for the courses overlap, when all of the following are met:
  - The student provides a valid justification, other than scheduling convenience, of the need for an overlapping schedule.

PLAGIARISM/ACADEMIC HONESTY

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: the 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 to develop an academic plan for the next semester. The student keeps written documentation of all work made up each week.

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 Enrollment Services, 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 Enrollment Services shall refer the student to appropriate adult education programs or community services.

7. A student may submit to the Director of Enrollment Services 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.

LEARNING COMMUNITIES

The Cabrillo Learning Communities are designed to help students succeed by helping them connect with other students and use college resources more effectively. Cabrillo offers many learning communities, such as ACE, REAL and STARS. Check out the Schedule of Classes to find learning communities in a variety of subjects.
Puente Project

The mission of the Puente Project is to increase the number of educationally underserved students who enroll in four-year colleges and universities, earn degrees, and return to the community as leaders and mentors to succeeding generations. Writing instruction, academic counseling, and a mentoring relationship with a professional in the community prepare Puente students for transfer. Puente students take two consecutive writing classes, ENGL 100 and ENGL 1AMC, work closely with their Puente counselor until they transfer, and are matched with mentors from the business or professional community. Puente students succeed academically and are recognized as leaders and scholars. Puente is open to all students.

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.

Expected Time Commitment

For each hour of lecture, it is assumed that students will be required to spend an additional two hours of study outside of class. The number of units awarded for laboratory courses is generally based on the number of hours of laboratory work, presuming that students complete most required work in class.

Excessive Absence

Class hours of absence are considered excessive when they total more than the number of hours a full-term class meets during each week of a 16-week semester. This applies proportionately to short-term day, evening, summer, wintersession, and weekend classes. For example, if a student is absent for more than three hours in a summer class that, when scheduled as a full-term class during a fall or spring semester meets for three hours per week, the student’s absence can be considered excessive, irrespective of the number of class meetings missed.

Excessive absence from class as defined in the above paragraph will constitute reason for an instructor to drop a student from that class. However, it is the student’s responsibility to officially withdraw from classes by published deadlines to avoid 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. If a student is unable to attend the first class meeting, it is his/her responsibility to notify the instructor personally or in writing. Students should not, however, assume that they will be dropped. It is the student’s responsibility to officially drop a course using WebAdvisor online registration. If the instructor does drop the student from the class, there is no automatic 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.

For online classes, students may be dropped who do not complete the required orientation OR contact their instructor by the end of the day published as the start date.

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 & 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 “P” 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, the student must register for both classes at the same time. If the student 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.

If you believe you have satisfied prerequisites at another college or in other ways, you must either bring documentation to a counselor for review and approval or utilize the college’s Requisite Challenge process. See below.

CHALLENGING COURSE REQUISITES AND LIMITATIONS

Challenges to pre and co-requirements will be resolved by the related department within five academic calendar workdays for the Fall and Spring semesters. Winter and summer intersessions have different timelines. Check the Student Success and Support Program (formerly Matriculation) Office for the process, forms, and additional information (831) 477-3242. 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.

Note: When a student successfully challenges a requisite, the student 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 for admissions by their transfer institution. Transfer students should first consult with a Cabrillo counselor.
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

VETERANS

The Veteran’s center, located in room 914A, provides services to meet the various needs of veterans and also to assist them in obtaining prompt receipt of their benefits. The center also provides information regarding tutorial assistance and counseling.

Courses offered by Cabrillo College are approved for training under programs administered by the Veteran’s Administration and the California Veteran’s Education Institute Act.

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. Each veteran who wishes to receive educational benefits should meet with the campus certifying official for guidance and completion of required paperwork.

Veteran’s Military Credit (DD214)

Cabrillo will accept a veteran’s DD-214 for credit toward Cabrillo’s CSU transferable and non-transferable AA and AS degrees as follows: 3 units for area E, Lifelong Learning and Self-Development. Students should submit their DD-214 to their counselor for a transferable CSU degree. They must have their CSU general education fully certified prior to transfer.

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 petition for such degree and upon verification will receive a diploma. To apply for an A.A. or A.S. Degree, Certificate of Achievement or a Skills 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 with a grade of A, B, C, D, or P (CR). 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 Enrollment Services 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.
Student Services, Activities, Rights and Responsibilities

ACTIVITIES AND ORGANIZATIONS

Student Affairs Office

The operational hub of extracurricular activities on campus is the Student Affairs Office; it also serves as the student-related campus information center.

Located in the Student Activities Center East, (831) 479-6378, this office assists students, staff and faculty with 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, student activity card, bus pass and parking permit information.

Student Senate at Cabrillo College

The Student Senate has two major roles. First, as the formal, official “voice of the students,” to voice 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. 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 in the Student Activity Center East, and leave a message for the Student Senate President or Coordinator of Student Activities.

For more information visit: www.cabrillo.edu/associations/studentsenate/

Publications

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

Alpha Gamma Sigma

Located in Student Activities Center East, 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 at go.cabrillo.edu/ags.

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, water polo, 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, Las Positas College, Evergreen Valley College, and San Jose City College.

Intercollegiate athletic competition is governed by the Coast Conference and the California State Community College Athletic Constitution. 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, Athletics, Wellness, and Kinesiology Division, in consultation with the Athletic Director, will interpret the State Athletic Constitution 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-distinct resident, by any member of the college or its employees is forbidden.

BOOKSTORE

The Cabrillo College Bookstore is located on the ground level of the Student Activities Center. The new Bookstore rents and sells new and used textbooks for Cabrillo courses—rental books saving students 60%. The bookstore also sells reference books, supplies, snack and gift items as well as Apple computers and software. Apple computers are sold at academic discounts through the bookstore website. Textbooks are available for purchase at the beginning of each term in store and on the web at: www.cabrillobooks.net.

The Bookstore is open extended hours the first week of instruction. Used book buyback services are provided Monday - Thursday during the first week of instruction and during finals week each semester.

Textbooks and Supplies

Students must furnish their own textbooks, workout clothes for kinesiology classes, locks, and supplies.

CHILDREN’S CENTER

The Cabrillo College Children’s Center provides childcare services for the families of students and faculty and for community families and serves as the demonstration lab school for the Early Childhood Department (ECE). 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 inclusive, culturally responsive, and high-quality program that serves as a model and observation site for Cabrillo and UCSC students and for local, state, national and international ECE educators.

Accredited by the National Association for the Education of Young Children (NAEYC), the Center is also one of only five demonstration sites in California for WestEd’s Program for Infant Toddler Care (PITC) of the California State Department of Education. By meeting standards of quality care for the NAEYC and PITC, the Center provides a model setting of current best practices for the ECE department and its students. Carefully selected learning activities facilitate overall development and competency through exploration, discovery, and meaningful interactions for all ages. Together, families, teachers and students interact, ask questions, and gain insights into children’s behavior, and into the role of adults in supporting children as they grow in our fast paced and complex world.

Building partnerships with families is an important aspect of the Center’s philosophy, as is valuing diversity and developing a bilingual Spanish/English program. For more information about the Children’s Center’s philosophy and about its goals visit the Center’s website at http://www.cabrillo.edu/services/childrenscenter/philosophy.html.

The Children’s Center is supported by state, federal and private grants, and by parent fees. The Margo Lynn Trombetta Infant Center, the Toddler and the Preschool classrooms provide three-quarter-and half-day care for children ages 6 months through 5 years. The California Department of Education Child Development Division provides funding for half-day childcare based on income and need. Families can apply for enrollment at the birth of a child. Applications are available on the Children’s Center website 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.

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, at (831) 479-6313.

COUNSELING

The Counseling Department’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 Department provides courses and workshops in college success, career planning, study skills, essay writing, general transfer requirements, and other topics as needed. Counselors help students with self-exploration, personal development, decision making, and career/life planning. Counselors assist students with transfer admission agreements with participating UC, CSU and private universities. For more information or to set up an appointment, call (831) 479-6274 or (831) 479-6385. For the Watsonville Center, call (831) 786-4734. Personal counseling is available on a limited basis. (See Student Health Services.)

The Department is staffed by professionally trained counselors who provide academic counseling for career 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 career programs offered at Cabrillo and information about four-year college admissions and programs. Students are encouraged to develop educational plans early to help them achieve their goals.

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 program: 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. Located in Library, upstairs.
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 Food Stamps 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 (closed 12:00-1:00 pm), 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, resource and referral information, liaison with the granting agency, and, for CalWORKs students only, childcare funds and work-study jobs. Call (831) 479-6344. See our website and blog at www.cabrillo.edu/services/fttw/.

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 achievement, 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, or Direct 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 notify the Financial Aid and Scholarships Office.

At Cabrillo College a student’s withdrawal date is:
• The date the Admissions & 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 online at www.fafsa.gov 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 2012-2013, annual awards range from $564 to $5845.

Federal Supplemental Educational Opportunity Grant (FSEOG)

These funds are awarded to students who have the highest need, have attempted less than 60 graded 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.

Cal Grants

To qualify for a state Cal Grant A, B, or C, students must be a resident of California or be determined to be AB540 by Admissions & Records, 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. Competitive awards are offered on a competitive basis to those students who did not receive entitlements and 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 achievement 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 for 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, 2013. The annual award is $1,000 at a community college, $2,000 at a CSU/UC.
Board of Governors Enrollment Fee Waiver (BOG)

This is a state program that waives community college enrollment fees. Students must be a resident of California or be determined to be eligible through the FAFSA. 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, at the Aptos campus or Watsonville Student Resource Center, at the Scotts Valley Center, or online at www.cabrillo.edu/services/finaid.

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 returning 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.

William D. Ford Federal Direct Loans

Cabrillo College participates in the William D. Ford Federal Direct Loan Program. Direct Loans are low-interest loans for students and parents to help pay for the cost of a student’s education. The lender is the U.S. Department of Education rather than a bank or other financial institution. Direct Loans are a form of financial aid and must be repaid with interest. Students who have demonstrated financial need may apply for a Direct Subsidized Loan. The federal government pays the interest on subsidized student loans while students are in enrolled at least six units and during a grace period afterward. Students who are not eligible for a subsidized loan and do not have financial need as calculated by the Financial Aid and Scholarships Office may apply for a Direct Unsubsidized Loan. The interest on unsubsidized student loans begins immediately and is not paid by the government. The interest rate on the subsidized loan is fixed at 3.4% and the interest rate on the unsubsidized loan is fixed at 6.8%. To apply for Direct Loans, students must file a FAFSA, complete an online Entrance Loan Counseling, sign a Master Promissory Note (MPN), and complete the required loan forms. All Direct Loan borrowers must be enrolled and attending a minimum of 6 units. Loan maximum amounts are based on grade level and eligibility. Parents of dependent students may borrow funds from the Direct Parent Loan for Undergraduate Students (PLUS) Program. The interest rate is fixed at 7.9%.

Chafee Grant

This is a grant program that assists eligible former foster youths 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.

STUDENT HEALTH SERVICES (SHS)

Student Health Services provides a variety of medical, personal counseling, and health information services in Room 912 (next to the cafeteria) on the Aptos campus, and during limited hours at the Student Resource Center on the Watsonville campus. For common illnesses, minor injuries, and for the monitoring of select chronic conditions (asthma and hypertension), assessment, diagnosis, and treatment, are provided by registered nurses and family nurse practitioners. Crisis counseling is available on a walk-in basis with health center nurses or personal counselors, and on-campus appointments for short-term personal counseling can be arranged by calling SHS.

First aid services, common over-the-counter medications, emergency birth control, and condoms are available free or at low-cost on a walk-in basis at SHS. Other services include blood tests for sexually-transmitted infections and other conditions; TB, pregnancy, and strep throat testing; and routine immunizations—all at low cost to students.

Wellness assessments are offered to all students, and mandatory screenings are provided for students entering or completing Allied Health programs (Nursing, Radiologic Technology, Dental Hygiene, and Medical Assisting). SHS also provides TB screening for faculty and staff at Cabrillo College. Low-cost, work related physical examinations are available as well.

Health information, safety, and wellness enhancement are a major focus for the SHS staff—not only for students, but for the entire Cabrillo community. An annual health fair, flu immunization clinics, wellness screenings, classroom presentations, and educational materials are provided to faculty, staff, and students. In addition, we are happy to work with faculty on the development of curricula around health-related topics.

For an appointment on either campus or for more information about what SHS can do for you, call (831) 479-6435.

HONORS TRANSFER PROGRAM

The Cabrillo Honors Transfer Program provides an enriched educational experience through stimulating seminars, sophisticated literature and outside research. The goal is to encourage Cabrillo students to seek challenges and pursue excellence. We offer an honors learning community that serves the high potential, high achieving students of our county. Universities are looking for outstanding students who have completed more than the minimum transfer requirements. As a result, competitive universities actively pursue honors students.

Honors students will benefit from priority admission or a competitive edge in the admissions/transfer process depending upon the college or university to which they apply. They will additionally receive from Cabrillo the following: scholarship advising and opportunities, research support from the College’s award-winning library staff, counseling and transfer assistance, recognition of honors coursework on transcripts, smaller class size, faculty mentors, a stimulating environment, membership in an honors transfer community of students, enriched curriculum, and a strong support network. Cabrillo is a member of the UCLA Transfer Alliance Program (TAP). Students who complete all requirements for their specific major at UCLA, and achieve Honors Scholar standing at Cabrillo will be eligible to participate in UCLA’s TAP, which gives priority admission into the College of Letters and Sciences.
The minimum qualifications for students applying directly from high school include a minimum 3.5 high school GPA or 1900 SAT or 29 ACT test scores. Students who have completed high school and are enrolled in college (Cabrillo or another college) need a minimum 3.3 cumulative, transferable GPA. Verification of writing proficiency (eligibility for ENGL 1A), one letter of recommendation, and an essay are also required to complete the application for the Honors Transfer Program.

If a student thinks he/she may not presently meet the entrance requirements, he/she may still submit an application for consideration. Visit our website for additional information and the on-line application www.cabrillohonors.org

**Honors Scholar Designation**

To achieve the Honors Scholar designation, students must complete four (4) or five (5) honors courses in a minimum of 15 semester units with a transferable GPA of 3.4 or higher. Each completed honors course is designated as Honors on a student’s transcript. Students who complete the 15-unit program receive the designation Honors Scholar posted on their transcript and if they complete an Associate degree, their accomplishment is announced at Cabrillo’s graduation. Both honors courses and the Honors Scholar designation will stand out on university applications and improve students’ chances of being admitted to selective colleges and universities.

Students must be enrolled in the Honors Transfer Program to register for the following honors courses:

- ANTHR 1H, ANTHR 2H, AH 11H, COMM 1H, ENGL 1AH, ENGL 1AMCH, ENGL 1BH, ENGL 2H, ENGL 2MCH, HIST 4AH, HIST 4BH, HIST 14H, HIST 17AH, HIST 17BH, HIST 21AH, HIST 21BH, HONRS 1H*
- LIBR 10H, MATH 12H, PHILO 10H, PS 1H, PSYCH 1H, SOC 1H, SOC 2H

*Note: HONRS 1H does not transfer to the UC system.

A maximum of 6 units from the following coursework may also be counted toward the Honors Scholar designation:

- ENGL 46A, ENGL 46B, SPAN 25, SPAN 26, MATH 6, MATH 7, ENGR 15, 35, PHYS 4B, PHYS 4C, CHEM 12A/AL, CHEM 12B/BL

**Honors Course Credit Limitation**

Duplicate credit will not be awarded for both the honors and regular versions of a course. Credit will only be awarded to the first course completed with a grade of “C” or better.

For more information contact the Honors Transfer Program, (831) 477-3505 or visit our website at www.cabrillohonors.org.

**HOUSING**

To assist students with housing, the Student Affairs Office provides a Housing Website at www.cabrillo.edu/services/housing. Students, staff and community members may advertise available listings.

**INSURANCE**

All registered 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 other insurance plans benefits covering a student, and benefits are paid to the limit of the policy only, and subject to the plan deductible. For more information and to report student accidents and obtain claim forms, call Student Health Services at (831) 479-6435 or Student Services at (831) 479-6317. 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 affect 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.

**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. Students are aided by librarians to become effective researchers in the complex and changing world of information literacy.

Librarians help students, faculty, and staff recognize when information is needed and then locate, evaluate, and use the needed information effectively. Approximately 96,000 items (print books, electronic books, and DVDs/videos) are listed in the online catalog in the library. The library provides a wide selection of full text database subscriptions to support instruction, including EBSCOhost Academic Search Complete, Health Source Nursing/Academic, Literature Resource Center, ProQuest Newspapers, Historical New York Times, ArtStor, Rand California, CountryWatch, CQ Researcher, and others. The library also provides access to over 24,000 electronic books, as well as over 4100 video/DVD titles. Access to electronic resources is available from any one of the more than 60 workstations in the library, and from off-campus to all current Cabrillo library card holders. The library building has wireless access to the Internet and to all online resources.

The library has 11 small group study rooms that seat from six to eight students, available on a first-come/first-serve basis, for small groups of students to work collaboratively on assignments and research projects. Special needs are accommodated in the library by the provision of three workstations with the Kurzweil program that converts print to electronic text which can be read to the user, one workstation equipped with screen-reading software and software which enlarges print, and a CCTV enlarging reader for use with any printed sources.

**Library hours during Fall and Spring semesters:**

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

Friday 9:00 a.m.-4:00 p.m.

For vacation and summer session hours check the library homepage at http://go.cabrillo.edu/library, or call (831) 479-6473. For a librarian’s help with information resources, call (831) 479-6163.
LOST AND FOUND

Lost and found articles are turned in to the Student Affairs Office/Reception Desk in the Student Activities Center (East Wing) 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 to help students develop an ability to tackle math problems on their own. By logging into the MLC database, students may request and receive help within minutes. Some of the ways in which students receive help are:

- clarifying and applying basic math concepts
- test taking and study skills
- understanding applications
- problem solving skills
- interpreting solutions
- organizing information
- analyzing errors
- connecting new knowledge to existing knowledge
- using resources (books, notes, calculators, Internet, computers and mobile devices)
- building confidence

When requesting help, individual tutors go to where students are studying. There is no line to wait in and students are helped in the order in which they request help. To reduce waiting time, each student is often helped with one or two problems before the tutor moves on to the next student. This gives students an opportunity to apply what they just learned to similar or new problems on their own; however, there is no limit to the number of times students may request help. Students may see how busy the MLC is by visiting the webpage: mlc.polyhedraldesign.com.

In addition to tutoring, students may use their Cabrillo Library Card to check out calculators, laptops*, textbooks, textbook videos, various learning software packages and a biofeedback system for managing math anxiety. These materials are available 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, please visit the Center in room 1074 and register for services. For additional information about the MLC, call (831) 477-5696 or visit the website at www.cabrillo.edu/services/mlc.

*Students must sign an agreement form downstairs in the Library to checkout mobile devices and laptops

MESA

MESA is a nationally recognized program that has been assisting students in preparing for careers in math-based fields for over 40 years at certain high schools, universities, and community colleges in California. Cabrillo’s MESA Program has its home in the MESA Study Center, now located in the new STEM Center on the top floor of the 800 Building. There the following services are provided to ALL Cabrillo students:

- Academic Excellence Workshops where 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, science-related software, and a small reference library of science and math books;
- Drop-in and group tutoring in math and sciences provided by math and science professionals and by students, and
- The opportunity to be a member of a supportive community of students all working toward transfer in a science, engineering or math major.

To those students who qualify for MESA membership, there are many more services and opportunities that are offered to ensure their successful transfer in science, engineering and math majors:

- Academic counseling by a designated MESA counselor to establish and update education plans;
- Scholarships, internships, leadership retreats, summer research programs;
- Field trips to industry sites, science museums, and prospective transfer universities;
- Long-term calculator, computer, and locker checkouts;
- Sponsored student travel to professional conferences and
- Free printing and copying in the Center.

To qualify for MESA membership, students must be working toward transfer in a math, engineering or science major; they must be eligible for financial aid and they must have some educational obstacle, such as being the first in their families to attend college. To find out more, come by the MESA Study Center in the STEM Center in the 800 Building, call (831) 479-6503, or use our website shortcut: www.cabrillomesa.org.

OPEN ACCESS COMPUTER LAB

Students may use the Open Access Computer labs for word processing, Internet access, and printing. The Open Access Labs are located in the Library, the Aptos CTC (Building 1400) Watsonville CTC (Room WatA310) and the Watsonville ILC (Room WatA210).

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) 479-6167.
SCHOLARSHIPS

Each year Cabrillo College awards a number of scholarships ranging in amounts from $500 to $2500. 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 at the Aptos campus or Watsonville Student Resource 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 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 Center 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 Center. 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 SAC West, on the street level. The Student Employment Center 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 Regulation (AR) 6110 describing the procedures for student rights and responsibilities is available in the Office of the Dean of Student Services, SAC East Room 217. AR 6110 is also available at http://go.cabrillo.edu/studentrights

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, AR 6110.

STROKE AND DISABILITY LEARNING CENTER

The Stroke and Disability Learning Center offers a series of special classes for adults with physical and/or neurological limitations including mobility, fitness skills, adaptation, problem solving, and oral and written communication skills. Classes are held in the Stroke and Disability Center on the Aptos campus. See Special Education and Adaptive Physical Education for course descriptions. A physician’s approval will be required. Call (831) 477-3300 for enrollment information or check the website at www.strokecenter.com.

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 in the Transfer/Career Center events calendar, or to visit the Transfer/Career Center and take advantage of the transfer resource library. Staff are available to assist students with transfer applications, research, and access to information. Counselors assist 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 career plans leading to entry into career fields, occupational training and transfer to four year universities. The Transfer/Career Center offers professional career counseling and assessment, courses in career planning, interest and personality assessments during the fall and spring semesters, a career library, and computer work stations. 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 A120, or call (831) 786-4734.

Transfer Admission Agreements

Although eligible students can apply to any private university and/or UC and CSU campuses through the regular admission process, Cabrillo has special transfer admission agreements (TAG/TAA) with a number of these. Students who are eligible may complete a TAG/TAA, which guarantees admission when an agreement is both approved by the university and completed by the student. Students can apply to multiple UC campuses through the regular admission process, however, they are limited to submitting a TAG application to only one UC campus per year. For the UC system, students may begin working on an agreement beginning July 1, 2012 and must submit it online during the month of September for fall 2013 admission. The Transfer/Career Center has more information on deadlines for the participating CSU and private universities. Contact the Counseling office at (831) 479-6274 or the Transfer/Career Center at (831) 479-6385 for more information.
TUTORIAL CENTER

The Tutorial Center offers free group assistance to all Cabrillo College students, with special services available to students enrolled in Disabled Students Program and Services (DSPS) and certain career 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). These courses may not be available every semester.

The Center is open Monday - Thursday, 8:00 a.m.-5:00 p.m. and Friday 9:00 a.m.-1:00 p.m. Interested persons may receive more information at the Center, Room 1080, or by calling (831) 479-6126.

WATSONVILLE INTEGRATED LEARNING CENTER

Staff at the Integrated Learning Center in room A210 on the second floor of the Watsonville Center provide tutoring in math, English and other subjects, labs in writing (ENGL 100L) and reading, and assistance with various learning resources. Students have access to computers, study space for individuals and groups, course reserve materials, a reference collection and a reading collection for checkout. Library cards are facilitated on site, as well as the checkout and return of materials from the Aptos library. DVDs, videos and other media are available for viewing and checkout. Hours during the semester are 8 am to 8 pm Monday-Thurs and 8 am-4 pm on Friday. Call (831) 786-4755 for more information.

WRITING CENTER AND ESL LAB

The Writing Center tutoring staff helps students to strengthen their writing and editing skills. Students can drop in for individualized tutoring (open entry ENGL 502L on any academic work that requires writing. Tutors work with students to develop effective writing strategies and techniques. The Center offers ENGL 100L, Writing Laboratory as co-requisite with ENGL 100, Elements of Writing. This one-unit weekly lab focuses on the practice and study of grammar, sentence structure, punctuation, and style in academic writing. ENGL 100L (writing) and ENGL 153 (spelling) labs are both offered in an online format. For current hours and information about tutorial services call (831) 479-6319.

The ESL Lab is part of the Writing Center and provides tutorial assistance to students whose primary language is not English. ESL students may sign up for tutorial support by taking ESL 502. They may also take individualized language labs, ESL 200L to 204L, which allow students to improve readings, grammar, and listening skills in the lab for credit. Please call (831) 479-6310 for details.

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

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 (A.A.) is primarily a liberal arts and sciences degree, though the major may be in a specific field, or in Liberal Arts and Sciences with an emphasis in Arts and Humanities, Social Sciences or Interdisciplinary Studies. In 1998, Cabrillo established two new transferable Associate in Arts Degrees that combine the admissions requirements of either the University of California (UC) or the California State University (CSU) with Cabrillo graduation requirements. Please see the Combined Requirements for the A.A./A.S. and Intersegmental General Education Transfer Curriculum (IGETC) or the Combined Requirements for the A.A./A.S. and California State University General Education.

The Associate in Science Degree (A.S.) is oriented to occupational programs (for those who seek employment with a two-year degree), and those who are in natural, physical, and applied science majors. For a detailed list of relevant transfer majors, see the chart of degrees and certificates at the end of this catalog section. 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. 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.

GOALS AND COMPETENCIES COMMON TO ALL NON-TRANSFERABLE ASSOCIATE DEGREES:

GOALS:

A-1: ENGLISH LANGUAGE

Goal: To ensure that Cabrillo graduates read, write, and speak critically and competently. Since 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:

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

A-2: COMMUNICATION AND 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.

Area B-1 SCIENTIFIC INQUIRY - PHYSICAL UNIVERSE

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.

Area B-2 SCIENTIFIC INQUIRY - LIFE FORMS
Goal: To improve students' understanding of complex and varied life forms and life processes.

Students will be able to:
- Effectively communicate concepts from the biological sciences
- Understand and apply the scientific method in the biological sciences
- Demonstrate understanding of scientific principles from the biological sciences
- Apply biological principles to interpret the observations of the natural world.

Area B-3 SCIENTIFIC INQUIRY - LABORATORY SCIENCES

Area C: ARTS AND HUMANITIES
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:
- Demonstrate awareness of the scope and variety of works in the arts and humanities
- Critically appreciate those works as expressions of individual and universal values within historical, social, and cultural contexts
- Analyze the aesthetic qualities of works in the arts and humanities
- Engage in the creative process of linguistic expression, philosophical reasoning, fine and performing arts, and analytical and creative writing
- Develop and express informed personal responses to works in the arts and humanities.

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

AMERICAN INSTITUTIONS REQUIREMENT
For the Associate in Arts degree, a U.S. History course and a designated (*) U.S. Political Science course are required; for the Associate in Science degree, a U.S. History or a designated (*) U.S. Political Science course is required. The courses may also be used to meet Area D requirements.

Area E: LIFELONG LEARNING AND SELF DEVELOPMENT
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:
- Develop the abilities to synthesize course material, including theoretical frameworks and their applications
- Assess themselves and others in relationship to course content
- Develop the ability to apply self-selected course concepts for increased efficacy in their lives.

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

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

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:
- Show a basic sense of numbers, including approximation and estimation
- Manipulate algebraic symbols and work a variety of basic algebra problems
- Translate problem situations into an appropriate representation and use that representation to solve the problem at hand
- Interpret, understand, and explain mathematical problems in verbal, numerical, symbolic, and graphical settings
- 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.

MAJOR REQUIREMENTS
The major may be in a specific field or in Liberal Arts and Sciences. Students majoring in Liberal Arts and Sciences will choose an area of emphasis from Arts and Humanities, Social Sciences or Interdisciplinary Studies. Students should see a counselor for help in developing a major program of study.

ELECTIVES
Elective units, in addition to general education and major units, may be needed to complete the required total of sixty (60) semester units.
NOTES COMMON TO ALL NON-TRANSFERABLE ASSOCIATE IN ARTS AND ASSOCIATE IN SCIENCE DEGREES:

- Sixty (60) degree-applicable units (courses numbered 1-199) are required for completion of the degree.
- All courses that count toward the Associate Degree major or area of emphasis must be “satisfactorily completed” with grades of A, B, C or P (pass). Courses that count toward the Math and English competencies must be completed with a “C” or better. All degree requirements, including general education, must be completed with an overall grade point average of 2.0 or better. Courses may be used to satisfy both the major and general education requirements. The units will be counted only once for the degree.
- Twelve (12) semester units may be pass (“P”) grades instead of letter grades. (These 12 units can be in addition to those courses regularly using Pass/No Pass grading.)
- At least twelve (12) of the required sixty (60) semester units must be completed in residence at Cabrillo College.
- A B.A./B.S. 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.

REQUIREMENTS FOR THE NON-TRANSFERABLE ASSOCIATE IN ARTS (A.A.) DEGREE

General Education Requirements 30 units:

Area A: English Language, Communication and Critical Thinking

A-1: English Language

Select 3 units from:

English 1A, 1AH, #1AMC, #1AMCH Must be completed with a “C” or better.

A-2: Communication and Critical Thinking

Select 3 units from:

Business 5, 9; Communication Studies 1, 1H, 2, 4, 10; Computer Science 1, 11; English 1B, 1BH, #1BMC, 2, 2H, #2MC, #2MCH, Mathematics (any, excluding 200 level courses); Philosophy 12, 49; Psychology 2A

Area B: Scientific Inquiry

B-1: Physical Universe

Select 3 units from:

Astronomy 3, 4, 7, 8A*; Chemistry 1A*, 1B*, 2*, 5*, 10*, 12A, 12AL*, 12B, 12BL*, 30A*, 30B*; 32*; Engineering 3; Environmental Science 10, 10L*; Geography 1, 1L*; Geology 10*, 15, 20, 25; Meteorology 1, 1L*; Oceanography 10*, Physics 2A*, 2B*, 4A*, 4B*, 4C*, 4D, 10, 10L*, 11*, 12

B-2: Life Forms

Select 3 units from:

Anthropology 1, 1H, 1L*; Biology 1A* 1B*, 1C*, 4*, 5*, 6*, 11A*, 11B*, 11C*, 13A, 13AL*, 13B, 21*; Horticulture 1A*, 1B*; Psychology 4

B-3: Laboratory Science

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

Area C: Arts and Humanities

Select 6 units from at least two different departments:

American Sign Language (SLS) 1, 2, 3; Art 2A, 4, 5, 7A, 8A, 24; Art Photography 9A, #15; Art History 10, 11, 11H, 12, 13, 14, #16, #17, #18, #19, 20A, 20B, #52, 53, 77; Chinese 1, 2; Dance #1 (10); #12, 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; History #2A, #2B, 4A, 4AH, 4B, 4BH; Italian 1, 2, 3, 10; Japanese 1, 2; Music 1, 5, 6, 10, 10M, #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, 10H, #14, #15, 16; 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 Sciences

1) Select one U.S. History course from:


2) Select one U.S. Political Science course from: PS 1, 1H, 5

3) Select a third course from:

Anthropology #2, #2H, 3, #6, #7, #8; Bilingual/Bicultural Studies #3; Communication Studies 7, #12; Early Childhood Education 31, 32, #52; Economics 1A, 1B; Environmental Science 20; Geography #2, #4, 5; Health Science 15; History #2A, #2B, 4A, 4AH, 4B, 4BH, #6, 9, 14, 14H, 15, #16A, #16B, #16C, 17A, 17AH, 17B, 17BH, #19A, #19B, #19C, #21A, #21AH, #21B, #21BH, 24, #29A, #29B; Journalism 21; Political Science 1, 1H, 2, 3, 5; Psychology 1, 1H, 2B, 6, 8, 12, 26, 31, 33; Sociology 1, 1H, #2, #2H, #3, 5, #8, 9, 10, 47; Women’s Studies 1, #2, #5, 7, 11

Area E: Lifelong Learning and Self-Development

Select 3 units from:

Culinary Arts and Hospitality Management 20; Counseling & Guidance 1, 52, 54, 58, 59; Early Childhood Education 31, 33; Health Science 10, 12, 15, 20, 21, 22, 24; Psychology 33, 35ABC, 37ABC, 39ABC; Sociology 5; Women’s Studies 1; DD214 (Military Credit).

Multicultural Requirement:

Choose one course marked with a #. This area may be double counted.

Mathematics Competency Requirement:

May be met by successful completion of Intermediate Algebra (MATH 142 or 152) or equivalent, or a higher-level math course with a grade of “C” or better.

Major Requirements: 18 units

Select 18 units in the major or emphasis. Disciplines in the Catalog outline “Suggested Model Programs” for the major.

Electives: 1-10 units

Select from courses numbered 1-199.

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

General Education Requirements 21 units:

Area A: English Language, Communication and Critical Thinking

A-1: English Language

Select 18 units in the major or emphasis. Disciplines in the Catalog outline “Suggested Model Programs” for the major.

Electives: 1-10 units

Select from courses numbered 1-199.

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

General Education Requirements 21 units:

Area A: English Language, Communication and Critical Thinking
Mathematics Competency Requirement:

- Astronomy 3, 4, 7, 8A*; Chemistry 1A*, 1B*, 2*, 5*, 10*, 12A, 12AL*, 12B, 12BL*, 30A*, 30B*; 32; Engineering 3; Environmental Science 10, 10L*; Geography 1, 1L*; Geology 10*, 15, 20*; Meteorology 1, 1L*; Oceanography 10*, Physics 2A*, 2B*, 4A*, 4B*, 4C*, 4D, 10, 10L*, 11*, 12

Multicultural Requirement:

- Anthropology 1, 1H, 1L*; Biology 1A* 1B*, 1C*, 4*, 5*, 6*, 11A*, 11B*, 11C*, 13A, 13AL*, 13B, 21*; Horticulture 1A*, 1B*; Psychology 4

Area E: Lifelong Learning and Self-Development

2) Select 3 units from:

- Social Sciences
- Arts and Humanities
- Laboratory Science

B-2: Life Forms

- Anthropology 1, 1H, 1L*; Biology 1A* 1B*, 1C*, 4*, 5*, 6*, 11A*, 11B*, 11C*, 13A, 13AL*, 13B, 21*; Horticulture 1A*, 1B*; Psychology 4

B-3: Laboratory Science

- Laboratory courses above are marked with an asterisk (*); a lab science is recommended.

Area C: Arts and Humanities

Select 3 units from:

American Sign Language (SLS) 1, 2, 3; Art 2A, 4, 5, 7A, 8A, 24; Art Photography 9A, 15; Art History 10, 11, 11H, 12, 13, 14, #16, #17, #18, #19, 20A, 20B, #52, 57, 77; Chinese 1, 2; Dance #1 (10), #12; 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, 10; History #2A, #2B, 4A, 4AH, 4B, 4BH; Italian 1, 2, 3, 10; Japanese 1, 2; Music 1, 5, 6, 10, 10M, #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, 10H, #14, #15, 16; 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 Sciences

1) Select 3 units from:

- History 14, 14H, 15, 17A, 17AH, 17B, 17BH, #18A, #18B, #21A, #21AH, #21B, #21BH, #29A, #29B, PS 1, 1H, 5

2) Select 3 units from:

- Anthropology #2, #2H, 3, #6, #7, #8; Bilingual/Bicultural Studies #32; Communication Studies 7, #12; Early Childhood Education 31, 32, #52; Economics 1A, 1B; Environmental Science 20; Geography #2, #4, 5; Health Science 15; History #2A, #2B, 4A, 4AH, 4B, 4BH, #6, 9, 14, 14H, 15, #16A, #16B, #16C, 17A, 17AH, 17B, 17BH, #19A, #19B, #19C, #21A, #21AH, #21B, #21BH, 24, #29A, #29B; Journalism 21; Political Science 1, 1H, 2, 3, 5; Psychology 1, 1H, 2B, 6, 8, 12, 26, 31, 33, Sociology 1, 1H, #2, #2H, #3, 5, #8, 9, 10, 47; Women's Studies 1, 2#; #5, 7, 11

Area E: Lifelong Learning and Self-Development

Select 3 units from:

- Communication Studies 7, #12; Culinary Arts and Hospitality Management 20; Counseling & Guidance 1, 52, 54, 58, 59; Early Childhood Education 31, 33; Health Science 10, 12, 15, 20, 21, 22, 24; Psychology 33, 35ABC, 37ABC, 39ABC, Sociology 5, Women's Studies 1; DD214 (Military Credit).

Multicultural Requirement:

- Choose one course marked with a #. This area may be double counted.

Mathematics Competency Requirement:

- May be met by successful completion of Intermediate Algebra (MATH 142 or 152) or equivalent, or a higher-level math course with a grade of “C” or better.

Major Requirements:

- Select 30 units in the major or emphasis. See the Catalog description for requirements for the major.

- The A.S. Degree major is a specialized major and should be planned with the aid of a counselor or faculty advisor.

Electives:

- Select from courses numbered 1-199.

PROGRAMS FOR OCCUPATIONAL ASSOCIATE IN SCIENCE (A.S.) 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 A SECOND ASSOCIATE DEGREE

- Multiple Associate Degrees can be awarded within one occupational program unless otherwise stated in the specific program description of this catalog. To be eligible for multiple Associate Degrees at Cabrillo College, 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 (10) 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.

- Transferable A.S. degrees are available in Astronomy, Biology, Chemistry, Computer Science, Engineering, General Science, Geology, Mathematics or Physics. Thirty (30) units minimum are required in the major using the catalog model program or the transfer requirements at www.assist.org as a guide.

- Transfer students must also meet the admissions requirements of the 4-year transfer university. Please see the handout in the Transfer/Career Center entitled “Essential Transfer Information” or follow the Combined Requirements for the IGETC A.A./A.S. or the Combined Requirements for the CSU GE A.A./A.S.. These requirements are listed in the following pages of this Catalog.

Associate Degrees for Transfer - A.A.-T/A.S.-T

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

1. Completion of 60 CSU-transferable semester units.
2. Minimum grade point average (GPA) of at least 2.0 in all CSU-transferable coursework. While a minimum of 2.0 is required for admission, some majors may require a higher GPA. Please consult with a counselor for more information.
3. Completion of a minimum of 18 semester units in an “A.A.-T” or “A.S.-T” major as detailed in the catalog. All courses in the major must be completed with a letter grade of “C” or better, or a “P” if the course is taken on a “Pass/No pass” basis (title 5 § 55063). A “P” grade is not acceptable for courses in the major.
4. Certified full completion of the California State University General Education-Breadth pattern (CSU GE Breadth) or the Intersegmental General Education Transfer Curriculum (IGETC) pattern.

Cabrillo offers several A.A.-T/A.S.-T degrees and more are under-development. For more information, see a counselor.

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 B.A./B.S. This general education pattern fulfills the lower-division general education required by the CSU System. By following the Combined Requirements for the Associate Degrees and CSU General Education detailed below (and on the yellow handout available in the Counseling offices and the Transfer/Career Center), 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 B.A./B.S. Degree at any of the University of California (UC) or California State University (CSU) campuses. 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 Associate Degrees and the IGETC detailed below (and on the lavender handout available in the Counseling offices and the Transfer/Career Center) 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 advisement.

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 General Education Requirements for a B.A./B.S. Degree, as well as other universities' 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.

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:

- 60 UC transferable semester units (minimum)
- 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 a 3.5 to be competitive.) Information on course transferability is included in each course description in the Cabrillo Catalog and Schedules of Classes.
- One UC transferable college course in mathematics that has a pre-requisite of Intermediate Algebra (Note: MATH 3 and MATH 15 do not meet the UC Math Admission requirement).
- Two approved UC transferable courses in English composition.
- Four approved UC transferable courses chosen from at least 2 different subject areas:
  - Arts & Humanities
  - Social and Behavioral Sciences
  - Physical and Biological Sciences

These specific requirements must be passed with grades of "C" or higher. The University of California 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 Associate Degrees and IGETC. This option allows students to complete both the IGETC requirements and the requirements for an Associate Degree. The IGETC is accepted at all campuses of both the University of California and the California State University provided the entire curriculum (39-42 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/Career Center in Building 100 to look up the campus specific general education requirements via 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 ASSIST (www.assist.org) which is bookmarked on the Internet stations in the Cabrillo Transfer/Career Center. If a UC campus has not posted this information in ASSIST, 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 UC campus, Cabrillo has special transfer admission agreements (TAGs) with Davis, Irvine, Merced, Riverside, Santa Barbara, San Diego, and Santa Cruz. Students who are qualified may write a TAG agreement to one UC campus which guarantees admission to that campus. All TAGs will be submitted on-line. Students may begin working on the agreements beginning July 1, 2013, and must submit during the month of September. Contact the Counseling office at (831) 479-6274 or the
For more information, contact the Cabrillo College Transfer/Career Center at 479-6385.

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, Harvard, Yale, Duke, and many other independent and out-of-state colleges and universities. For more information, contact the Cabrillo College Transfer/Career Center for research or an appointment (831) 479-6385.

TRANSFER TO THE CALIFORNIA STATE UNIVERSITY SYSTEM

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

General Education Requirements

For admission to the California State University as a transfer student, students must complete:

- 2.0 minimum grade point average; most campuses are more selective and will require a higher grade point average. (San Diego State and Cal Poly San Luis Obispo require a 3.2 or above to be competitive).

One transferable college course in mathematics that has a pre-requisite of Intermediate Algebra

- One transferable English composition course

- One critical thinking course

- One course in Communication.

These specific requirements must be passed with grades of “C” or higher. The university will accept a maximum of 70 CSU 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 Associate Degrees/CSU GE requirements. This Associate 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 Associate 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 (39-42 units) is completed prior to transfer (please refer to the information about the Transferable Associate 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 (www.assist.org). These sites are bookmarked on the Internet stations in the Cabrillo Transfer/Career Center, the 100 Building. If a CSU campus has not posted this information in ASSIST or on their campus websites, , 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 (TAGs) with Humboldt State and CSU Monterey Bay. Students who are qualified may write a TAG 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.

Course Identification Numbering System (C-ID)

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

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

Students may consult the ASSIST database at www.assist.org for specific information on C-ID course designations. The C-ID project is also integral to the Associate Degrees for Transfer (AA-T/AS-T). See that specific information in this Catalog. Counselors can always help students interpret or explain this information.

Note: C-ID numbers for Cabrillo courses are being approved daily - for the most up-to-date list, go to http://www.c-id.net/course_compare.html.
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, non-transfer level courses.

200-299
Courses numbered 200 through 299 are non-transferable, 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 599 are non-credit courses, are non-transferable, and are not recorded on a transcript.

CAREER TECHNOLOGY EDUCATION PROGRAMS
(Occupational, Vocational Programs)
Cabrillo College offers programs that lead to Skills Certificates, Certificates of Achievement, and non-transferable A.S. Degrees. These programs prepare students for immediate employment or job advancement. For a listing of Career Technical Education programs see Program Information page of this Catalog. For further information see the catalog pages describing the program and contact the individual department offering the program or the Transfer/Career Center. Students seeking a Career Technical Education certificate or degree should see a counselor to develop an educational plan.

Skills Certificate
Skills Certificates are awarded to students who acquire a set of career-relevant skills through the completion of one or more courses as specified in the college Catalog. All courses that count toward the Skills Certificate must be “satisfactorily completed” with grades of A, B, C or P (Pass).

Certificate of Achievement
Certificates of Achievement provide an opportunity to pursue a concentrated course of study in a particular career area. The courses required for individual certificates are listed by program name on the following pages. All courses that count toward the Certificate of Achievement must be “satisfactorily completed” with grades of A, B, C or P (Pass).

Associate in Science Degree
The non-transferable Associate in Science programs usually consist of the core Certificate of Achievement courses, 21 units of General Education requirements, plus suggested electives to total a minimum of 60 units. All courses that count toward the Math and English competencies and the major or emphasis must be “satisfactorily completed” with grades of A, B, C or P (Pass).
### General Education

**60 CSU transferable units**—Use of units from other community colleges must be checked on Assist www.assist.org. A Cabrillo College counselor must check use of units from out of state or 4-year universities - you must provide official transcripts from all schools attended. Students transferring to CSU should complete the lower division major preparation courses required by the 4-year school for their chosen major for their BA or BS degree. It is advisable to work with a Cabrillo College counselor and/or consult www.assist.org for major preparation courses required or recommended before transfer.

Minimum 2.0 GPA required.

<table>
<thead>
<tr>
<th><strong>GENERAL EDUCATION:</strong></th>
<th><strong>(39 UNITS) RECOMMENDED</strong></th>
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<tbody>
<tr>
<td><strong>30 Required (Including all of Area A &amp; B4)</strong></td>
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Complete at least 30 units of general education including all of Area A and Area B4 which must be completed with a "C" or better. Students who complete only 30 units will have at least 9 units of lower division courses to complete upon transfer. It is advisable to complete all 39 units of lower division general education before transfer and to have your GE certified. Full GE certification (all areas complete) is required for the AA-T/AS-T degrees. Courses may be used to satisfy both major and general education requirements - the units will be counted only once for the degree. Partial Certification (missing up to 3 courses/areas) is allowable in certain circumstances - all of Area A and B4 require completion.

**Area A: English Language Communication and Critical Thinking** Select one course from each of the three sub-areas:

- **A1 - Communication (3 units):** COMM 1, 1H, 2, 10 (No AP or IB accepted)
- **A2 - English Language (3 units):** ENGL 1A, 1AH, #1AMC, #1AMCH (No IB accepted)
- **A3 - Critical Thinking (3 units):** COMM 4; ENGL 2, 2H, #2MC, #2MCH; PHILO 12, 49 (No AP or IB accepted)

Note: Students planning to attend SFSU or SJSU should take one of the English 2 courses. English 1B taken at Cabrillo through Summer '05 may be used in Area A3. English 1BMC does not meet Area A3. All of AREA A must be completed with a "C" or better.

**Area B: Scientific Inquiry and Quantitative Reasoning** Select at least one course from B1, B2, B3 and B4. Area B4 must be completed with a "C" or better.

- **B1 - Physical Universe (3-5 units):** ASTRO 3, 4, 7, 8A*; CHEM 1A*, 1B*, 2*, 5*, 10*, 12A, 12AL*, 12B, 12BL*, 30A*, 30B*, 32*; ENGR 3, ES 10, 10L*; GEOG 1, 1L*, 7; GEOL 10*, 15, 20*; METEO 1, 1L*; OCEAN 10*; PHYS 2A*, 2B*, 4A*, 4B*, 4C*, 4D, 10, 10L*, 11*, 12
- **B2 - Life Forms (3-5 units):** ANTHR 1, 1H, 1L*; BIO 1A*, 1B*, 1C*, 4*, 5*, 6*, 11A*, 11B*, 11C*, 13A, 13AL*, 13B, 21* (21A*) (beg. F'04); PSYCH 4
- **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-GEOG 1+1L, ASTRO 3, 4, or 7 + 8A, METEO 1 + 1L, ANTHR 1/1H + 1L, BIO 13A + 13AL, PHYS 10+10L
- **B4 - Quantitative Reasoning (3-5 units):** BUS 9, (beg. F’13) MATH 2, 3 (beg. F’11), 4, 5A, 5B, 5C, 6, 7, 10, 12, 12H, 13, 15, 18, PSYCH 2A

*Note: math courses have a prerequisite of Intermediate Algebra or higher-level math course.*

**Areas A & B4 are required for AA/AS Degrees and admission to the university.**

**Area C: Arts and Humanities** Select at least one course from C1 and one course from C2 - 3 courses total.

- **C1 - Arts: AH 10, 11, 11H, 12, 13, 14, #16, #17, #18, #19, 20A, 20B, #52, 53, 77; AP #15; DANCE #1 (10); #12; MUS 1, 5, 6, 10, 10M, #11A, #11LA, #12, #13A, 77; TA 7, #8, 9, 10A, 77
- **C2 - Humanities:** ASL(SLS) 1, 2, 3; CHIN 1, 2; ENGL 1B, 1BMC, 12A, 12B, 12C, 12D, 12E, 12F, 17, 20A, 20B, #24A, #24B, 30A, 30B, 31, 32, 33, 34, #39, 40, #41A, #41B, 45A, 46B, 47, 48A, 49A, 49B; FR 1, 2, 3, 4, 10; GRMN 1, 2, 10; HIST #2A, #2B, 4A, 4AH, 4B, 4BH; ITAL 1, 2, 3, 10; JAPAN 1, 2; PHILO 4, 6, 7, 8, 9, 10, 10H, #14, #15, 16; SPAN 1, 2, 3, 4, 5A, 5B, 6A, 6B, 10A, 10B, 16, 17, 25, 26, #30B

Note: ENGL 1B may be counted under C2 if not used to meet the A3 requirement (prior to F’05). Students planning to attend SFSU or SJSU who DID NOT take ENGL 2 are advised to take ENGL 1B for C2. ENGL 1BMC may be counted only under C2. Students who completed the following courses F’95 or earlier will receive general education credit in Area C1: ART 2A, 4, 5, 7A, 8A, 9A, 24; MUS 17A, 19, 33A, 34, 35, 36, 38, 40, 46, 49, 51A, 54, 55, 58; TA 28, 29. A maximum of six semester units in performance courses is allowed.

HIST 2A, 2B, 4A/4AH & 4B/4BH can be used in either Area C or D, but not both.
### AREA D: Social Sciences

Select three courses—No more than two courses may be counted from any single department. (9 UNITS)

- ANTHR #2, #2H, #6, #7, #8; BBS #32; COMM 7, #12; ECE 31, 32; ECON 1A, 1B; ES 20; Geography #2, #4, 5; HS 15; HIST #2A, #2B, 4A, 4AH, 4B, 4BH, #6, 9, 14*, 15*, #16A, #16B, #16C, 17A*, 17AH*, 17B*, 17BH*, #19A, #19B, #19C, #21A*, #21AH*, #21B*, #21BH*, 24, #29A*, #29B*, JOURN 21; PS 1*, 1H*, 2, 3, 5*, PSYCH 1, 1H, 1B, 2B, 6, 8, 12, 26, 31, 33; SOC 1, 1H, #2, #2H, #3, 5, #8, #9, 10, 47; WS 1, #2, 7, 11

**Note:**

A U.S. History and a U.S. Political Science marked with an * is highly recommended. See NOTE below.

HIST 2A, 2B, 4A/4AH & 4B/4BH can be used in Area C or D, but not both; ECE 31, HS 15, PSYCH 33, SOC 5 and WS 1 may be used in Area D or E, but not both.

**NOTE:**

CSU graduation requires fulfillment of a U.S. History, Constitution, and American Ideals requirement. Students are strongly recommended to complete these requirements prior to transfer. Taking one history course and one political science course marked with an asterisk (*) will complete this requirement.

**For Teacher Preparation, it is highly recommended that students complete either History 17A/17AH or Political Science 1/1H**.

*Political Science courses must include California Government—out-of-state courses can be supplemented with 1-unit special studies.

### AREA E: Lifelong Learning and Self-Development

Select 3 units: (3 UNITS)

- CG 1; CAHM 20; ECE 31, 33; HS 10, 12, 15, 20, 21, 22, 24; *PSYCH 33, 35ABC, 37ABC, 39ABC; SOC 5; WS 1; **DD214 (Military Credit)**
- Student must have CSU GE FullyCertified. *Students must complete PSYCH 35, 37 or 39 ABC to receive general education credit. Note: ECE 31, HS 15, PSYCH 33, SOC 5 and WS 1 may be used in Area D or E, but not both.

**MC: MULTICULTURAL STUDIES REQUIREMENT*** (not required for AA-T/AS-T degrees) (3 UNITS)

Select one course from any of the above areas that is marked with the # sign or WS 5. This area may be double counted. A course from another college may be used to fulfill this requirement—check with a counselor.

### MAJOR: Specific Discipline or Liberal Arts & Sciences with Emphasis (for students beginning F'08)

Courses may be used to satisfy both the major/emphasis and general education requirements, but will be counted only once for the total degree units. (18-30 UNITS)

**For Students beginning F'10, all courses in the major or emphasis must be completed with a "C" or better.**

For students entering Cabrillo College beginning F'08, the Liberal Arts and Sciences degree requires an 18 unit emphasis—chosen from Arts & Humanities (Area C), or Social Sciences (Area D), or Interdisciplinary Studies (a combination of Areas A, B4, C & D). The complete list of approved courses for these areas of emphasis is listed in the current Cabrillo catalog.

Students may achieve a major in a specific discipline (18 units in the major), or transferable A.S. degrees in Astronomy, Biology, Chemistry, Computer Science, Engineering, General Science, Geology, Mathematics or Physics (30 units in the major) using the catalog model program or the transfer requirements on www.assist.org as a guide.
Graduation Requirements: Associate and CSU

Partial GE certification is now allowed for University of California. Students are urged to check with UC transfer campus as some campuses (Berkeley in particular) have said that they will not allow partial IGETC. Full GE Certification is required for the A.A.-T and A.S.-T degrees. A Cabrillo College counselor must check use of units from out of state or 4-year universities. Courses may be used to satisfy both the major/emphasis and general education requirements, but will be counted only once for the total degree units.

Please note: Only 4-units of ATH & KIN activity and 8 units of ATH theory courses may be counted toward the 60-unit requirement for students transferring to a UC.

AP and IB scores may be used for IGETC in some areas; CLEP scores may not be used for IGETC. See a Counselor.

Area 1: English Communication: CSU-3 courses required—one from each Group a-c. 9 semester/12 quarter units; UC-2 courses required—one from Group a and one from Group b. 6 semester/9 quarter units

Group a: English Composition: ENGL 1A, 1AH, #1AMC, #1AMCH (No IB accepted)

Group b: Critical Thinking/English Composition: ENGL 2, 2H, #2MC, #2MCH, PHILO 49 (beg. F'03) Note: Students planning to attend SFSU or SJSU should take one of the ENGL 2 courses listed above. (No AP or IB accepted)

Group c: Oral Communication: COMM 1, 1H, 2, 10 CSU only (No AP or IB accepted)

Area 2: Mathematical Concepts & Quantitative Reasoning: 1 course, 3 semester/4-5 quarter units.

Mathematics (3-5 units)—select from the following:
BUS 9, (beg F'13) MATH 2, 4, 5A, 5B, 5C, 6, 7, 10, 12, 12H, 13, 18 (beg F'02), 23, PSYCH 2A

Area 3: Arts & Humanities: 3 courses, with at least 1 from the Arts and 1 from the Humanities. 9 semester/12-15 quarter units.

Arts: AH 10, 11, 11H, 12, 13, 14, #16, #17, #18, #19, 20A, 20B, #52, 53, 77; AP #15; DANCE #1 (10), #12; MUS 1, 5, 6, 10, 10M, #11A, #11LA, #12, #13A, 77 TA #8, 9, 77

Humanities: ASL (SLS) 3; ENGL 1B, #1BMC, 20A, 20B, #24A, #24B, 30A, 30B, 31, 32, 33, 34, #39, 40, #41A, #41B, #45, 46A, 46B, 47, 48A, 49A; FR 3, 4; HIST #2A, #2B, 4A, 4AH, 4B, 4BH; ITAL 3; PHILO 4, 6, 7, 8, 9, 10, 10H, #14, #15, 16, SPAN 3, 4, 6A, 6B, 25, 26, #30B

Area 4: Social & Behavioral Sciences: 3 courses from at least 2 disciplines or an interdisciplinary sequence. 9 semester/12-15 quarter units

ANTHR #2, #2H, 3, #6, #7, 8; BBS #32; COMM 12 (beg. F'13); ECE 31, 32; ECON 1A, 1B; ES 20; GEOG #2, #4, 5; HS 15; HIST #2A, #2B, 4A, 4AH, 4B, 4BH, #6, 9, 14*, 14H* 15*, #16A, #16B, #16C, 17A*, 17AH*, 17B*, 17BH*, #19A, #19B, #19C, #21A*, #21AH*, #21B*, #21BH*, 24, #29A*, #29B*; JOURN 21; PS 1*, 1H*, 2, 3, 5*; PSYCH 1, 1H, 6, 8, 12, 26, 31, 33; SOC 1, 1H, #2, #2H, #3, 5, 8, #9, 10, 47; WS 1, #2, 7, 11

*Indicates course meets U.S. History or Political Science requirement.

For Teacher Prep at either CSU or UC, it is recommended that students complete either HIST 17A/17AH or PS 1/1H. The CSU system has a graduation requirement in U.S. History & U.S. Political Science—It is recommended that students complete these courses prior to transfer. Choose one HIST course and one PS course marked with an asterisk * to meet this requirement before transfer. Out of state students who have taken a US Political Science course may take a one-unit supplement on California government.

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**Combined Requirements for the Associate Degrees and the IGETC (lavender)**

**UC 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. Complete one multicultural course;
4. Major—see Major section below.

Note: GE and Major courses must be completed with a “C” or better.

**CSU Requirements for the IGETC A.A. degree (2.0 GPA required):**
1. 60 CSU transferable units;
2. General Education—Complete IGETC Areas 1-5;
3. Complete one multicultural course;
4. Major—see Major section below.

Note: GE and Major courses must be completed with a “C” or better.
Area 5: Physical & Biological Sciences (minimum of 7 semester units): Select one Physical and one Biological Science; one of these courses must have a laboratory and the units from both sciences must total at least 7 semester units. Laboratory sciences are marked +.

**Physical Science (3-5 units)**-ASTRO 3, 4, 7, +8A; CHEM +1A, +1B, +2, +5, +10, 12A, +12AL, 12B, +12BL; ENGR 3; ES 10, +10L; GEOG 1, +1L; GEOL +10, 15, +20; METEO 1, +1L; OCEAN +10; PHYS +2A, +2B, +4A, +4B, +4C, 4D, 10, +10L, +11, 12

**Biological Science (3-5 units)**-ANTHR 1, 1H, +1L; BIO +1A, +1B, +1C, +4, +5, +6, +11A, +11B, +11C, 13A, +13AL, 13B, +21 (+21A) (beg. Sp’05); PSYCH 4

Foreign Language Requirement (1 course 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 3-Humanities. The following languages are offered at Cabrillo College: Chinese, French, German, Italian, Japanese, American Sign Language (SLS), Spanish

***Multicultural Requirement (3 units) - A.A. requirement only*** (not required for the A.A.-T/A.S.-T degrees)

Select a course from any of the above areas that is marked # or WS 5. This area may be double counted. A course from another college may be used to fulfill this requirement-check with a counselor.

MAJOR: Specific Discipline or Liberal Arts and Sciences with Emphasis (for students beginning F’08)(18-30 Units)

For students beginning F’10, all courses in the major or emphasis must be completed with a "C" or better.

For students entering Cabrillo College beginning F’08, the Liberal Arts and Sciences degree requires an 18 unit emphasis-from Arts & Humanities, or Social Sciences, or Interdisciplinary Studies (a combination of Areas A, B4, C & D on the CSU GE list). The complete list of approved courses for these areas of emphasis is listed in the current Cabrillo catalog.

Students may achieve a major in a specific discipline (18 units in the major), or transferable A.S. degrees in Astronomy, Biology, Chemistry, Computer Science, Engineering, General Science, Geology, Mathematics, or Physics (students must take at least 30 units in the major) using the catalog model program or the transfer requirements on www.assist.org as a guide.
### Degrees and Certificates

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<td>Anthropology</td>
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<td>Art Photography</td>
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<td>Art-Studio</td>
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<td>Asian Studies</td>
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<td>Astronomy</td>
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<td>Chemistry</td>
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<td>Communication Studies</td>
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<td>Computer Applications/Business Technology: Computer/Business Applications</td>
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<td>Administrative Support</td>
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<td>Computer and Information Systems: Computer Networking and System Administration</td>
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<tr>
<td>Cisco Certified Network Professional (CCNP) Security</td>
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<td>Computer Support: Computer Support</td>
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<td>Computer Science:</td>
<td>C++ Programming, Java Programming, Programming, Web Programming Fundamentals, A.S.</td>
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<td>Construction Management: Construction Management</td>
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<td>Dance</td>
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<td>Spanish/Bilingual English Teaching</td>
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<td>Curriculum Planning</td>
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<td>Infant/Toddler Care</td>
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<td>Teaching</td>
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<tr>
<td>Working W/ Culturally Diverse Families</td>
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<td>Economics</td>
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<td>Engineering, General</td>
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<td>Human Services:</td>
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<td>Generalist Practice</td>
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<td>International Studies</td>
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<td>Journalism</td>
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<tr>
<td>Kinesiology</td>
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</table>

### Liberal Arts & Sciences (Transfer)
- Arts & Humanities, A.A.
- Interdisciplinary Studies, A.A.
- Social Sciences, A.A.
- Liberal Arts & Sciences (Non-Transfer), A.A./A.A.

### Liberal Studies (Elementary Ed.)
- A.A.
- A.A./A.A.-T

### Mathematics
- A.S./A.S.-T
- Cert

### Music
- A.A.
- A.S.
- A.S.
- A.A.
- A.A.
- A.A.
- A.A./A.A.-T
- Cert

### Public Safety:
- Criminal Justice: Corrections, A.A./A.S.
- Criminal Justice: Law Enforcement, A.A./A.S.
- Fire Service Management, A.S.
- Fire Technology, A.A./A.A.

### Psychologist
- A.A./A.A.-T

### Sociology
- A.A./A.A.-T

### Spanish
- A.A.

### Theatre Arts/Drama
- A.A.

### Women’s Studies
- A.A.

### Skills Certificates (SC):

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<tr>
<td>UNIX/Linux System Administration</td>
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<td>Computer Support: A+ Preparation</td>
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<td>Computer Science: Game Programming</td>
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<td>Website Design</td>
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<td>Motion Media</td>
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### Early Childhood Education:
- Spanish/English Early Childhood Teaching, SC
- Energy Management: Solar Derived Energy Management, SC
- Engineering Technology: Architectural Drafting & Design, SC
- Computer Aided Drafting & Design, SC
- Computer Animation, SC
- Manufacturing Specialist, SC
- Technology and Trades, SC

### Horticulture:
- Alternative Food Production Methods, SC
- Arboriculture, SC
- General Horticulture, SC
- Greenhouse and Nursery Management, SC
- Home Horticulture, SC
- Landscape Design, SC
- Landscape Gardener, SC
- Landscaping, SC

### Human Services:
- Generalist Practice, SC
- Drug and Alcohol Studies, SC
- Medical Assisting: Phlebotomy Technician, SC
- Electronic Health Records, SC

### Music:
- Classical Guitar, SC
- Jazz/Rock Guitar, SC
- Jazz Studies, SC
- Jazz/Pop Voice, SC
- Latin American Music, SC
- Music Technology, SC
- Musical Theatre, SC
- Piano, SC
- Voice, SC

### Public Safety:
- Emergency Medical Technician, SC

### Radiologic Technology
- Venipuncture, SC
- Theatre Arts/Drama: Musical Theatre, SC
- Technical Theatre, SC

### Welding:
- Basic Welding, SC
- Advanced Welding, SC

### Legend:
- A.A. is an Associate in Arts Degree
- A.S. is an Associate in Science Degree
- A.A./T is an Associate in Arts for Transfer Degree
- A.S.-T is an Associate in Science for Transfer Degree
- Cert is a Certificate of Achievement
- SC is a Skills Certificate
Come study with us for an education that will work for you!

Our programs work! A spring 2012 survey showed that those who completed a Cabrillo certificate or degree earned an average annual increase in salary of 44% after completing school. Program information can be found in this Catalog under the program name and on our website, cabrillo.edu/services/careered/. A spring 2012 survey showed that those who completed a Cabrillo certificate or degree earned an average annual increase in salary of 44% after completing school. Program information can be found in this Catalog under the program name and on our website, cabrillo.edu/services/careered/.

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<td>Building Inspection</td>
<td>Building Inspector Public Works Inspector</td>
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<td>Construction Management</td>
<td>Contractor Project Manager Site Superintendent Estimator</td>
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<td>Contractor Project Manager Estimator Installer</td>
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<td>Horticulture</td>
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<td>Human Services</td>
<td>Counselor Mental Health Technician Advocate Social Work Assistant</td>
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<td>Journalism</td>
<td>Reporter Writer Editor Digital Photography Photo Journalist</td>
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<td>Welding</td>
<td>AWS–SCWI Senior Certified Welding Inspector</td>
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<td>Bookkeeping Auditing Tax/Payroll Accounting General Office</td>
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<td>Office Assistant Receptionist General Office</td>
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<td>Manufacturing Specialist</td>
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<td>Print Media</td>
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<td>Animation</td>
<td>Animation Illustration Character Design Advertising Web Design</td>
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<tr>
<td>Architectural Drafting &amp; Design</td>
<td>see Engineering Technology Department</td>
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<tr>
<td>Business</td>
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<tr>
<td>Civil Survey Drafting &amp; Design</td>
<td>Civil Survey Designer/Draftsperson Civil Survey Assistant</td>
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<td>Computer Aided Drafting &amp; Design</td>
<td>CAD Operator CAD/CAM Technician</td>
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<td>Computer Animation</td>
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<td>Computer Support</td>
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<tr>
<td>Digital Imaging</td>
<td>Digital Illustrator Digital Photo Editor Photo Image Compositor</td>
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<td>Digital Publishing</td>
<td>Digital Publishing Page Layout Illustrator Graphic Designer</td>
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<td>Digital Video</td>
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<td>Manufacturing Specialist</td>
<td>see Engineering Technology Department</td>
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<tr>
<td>Print Media</td>
<td>Graphic Production Artist Graphic Designer</td>
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</table>
Screen Media
see Digital Media Department
Interactive Media Designer Motion Graphics Designer Motion Media Producer

Web Design
see Digital Media Department
Web Designer Web Production Artist Information Architect

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

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 Assistant
see Medical Assisting Department
Unit Coordinator Medical Records Medical Assistant Clinical Medical Assistant Patient Service Representative

Phlebotomy Technician
see Medical Assisting Department
Clinical or Hospital Setting

Radiologic Technology
see Radiologic Technology Department
Radiologic Technologist

PUBLIC SAFETY

Criminal Justice
see Criminal Justice Department
Law Enforcement Corrections Community Service Officer

Emergency Medical Technician (EMT)
see Fire Technology Department
EMT Certification EMT Recertification

Fire Service Management
see Fire Technology Department
Fire Service Management

Fire Technology
see Fire Technology Department
Fire Fighter Fire Prevention
ACADEMY FOR COLLEGE EXCELLENCE

Business, English, and Language Arts Division
James Weckler, Division Dean
Division Office, Room 301
Sadie Reynolds, Program Director,
e-mail: sareynol@cabrillo.edu
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 786-4734
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The Academy for College Excellence (ACE) is a nationally-recognized program that has shown significant results. No matter what your current abilities are, in just one semester you discover new skills and use techniques to successfully complete your educational goals. Independent evaluations show that ACE students, following their semester in the ACE Program, accelerate their academic success obtaining more units and successfully completing college courses.

ACE teaches you skills that stay with you for life. You learn skills taught to professionals in today’s leading companies. ACE students are supported by five teachers in a full-time learning community. ACE curriculum utilizes student teams to research community issues and develop action plans for change.

ACE helps you choose and prepare for a career you’ll enjoy and find rewarding. Students who have completed the program have gone on to complete courses that prepare them for high-paying careers in fields like healthcare, business, criminal justice, engineering, social work, computers and other fields.

If you haven’t been in school for a while or think you want to associate with a community of successful full-time students then please look into the ACE Program.

ACE courses are described in the Digital Management Career Preparation department and see ACEs website for more information:
http://www.cabrillo.edu/academics/ace/

Please see page 137 for program and course listings for DMCP.

ACCOUNTING/FINANCE

Business, English, and Language Arts Division
James Weckler, Division Dean
Division Office, Room 301
Mo Hassan, Program Chair, (831) 477-3201
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 786-4734
Call (831) 479-6400 for more information
http://www.cabrillo.edu/programs

Accounting/Finance Occupational Program

Accounting

Accounting A.S. Degree

Program Description:
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 businesses. 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 Achievement in Accounting, and an Associate of Science degree in 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.

Program Learning Outcomes:

1. Develop, create and maintain an accounting process and bookkeeping system for a business organization.
2. Create, manage and maintain records and financial statements for managers of a business organization.

A.S. General Education  21 Units

<table>
<thead>
<tr>
<th>Core Courses-Level I</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 151A Introduction to Accounting: Bookkeeping Concepts .</td>
<td>4</td>
</tr>
<tr>
<td>BUS 5 Business Information Systems .</td>
<td>4</td>
</tr>
<tr>
<td>CABT 110A Computer Keyboarding-Alphabet Keys .</td>
<td>0.5</td>
</tr>
<tr>
<td>CABT 110B Computer Keyboarding-Numbers/Symbols .</td>
<td>0.5</td>
</tr>
<tr>
<td>CABT 102 10-Key Calculator .</td>
<td>1</td>
</tr>
</tbody>
</table>

Core Courses-Level II

| ACCT 6 Spreadsheets for Accounting . | 4 |
| ACCT 159 Computer Accounting . | 4 |
| ACCT 163 Using Quickbooks . | 3 |
### Accounting Certificate of Achievement

**Core Courses-Level I**
- ACCT 151A Introduction to Accounting: Bookkeeping Concepts 4 units
- BUS 5 Business Information Systems 4 units
- CABT 110A Computer Keyboarding-Alphabet Keys 0.5 units
- CABT 110B Computer Keyboarding-Numbers/Symbols 0.5 units
- CABT 102 10-Key Calculator 1 unit

**Core Courses-Level II**
- ACCT 6 Spreadsheets for Accounting 4 units
- ACCT 159 Computer Accounting 4 units
- ACCT 163 Using Quickbooks 3 units

Required Courses:
- ENGL 100 Elements of Writing 3 units
  or
- ENGL 1A/1AH/1AMC/1AMCH 3 units
  or
- CABT 157 Business and Technical Writing 3 units

**Total Units** 24-27

### Accounting A.S. Synopsis

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>Accounting Core Level I, II</td>
<td>21-24</td>
</tr>
<tr>
<td>ACCT 1A Financial Accounting</td>
<td>4</td>
</tr>
<tr>
<td>General Education</td>
<td>21</td>
</tr>
<tr>
<td>Approved Electives</td>
<td>3</td>
</tr>
<tr>
<td>Electives (Any Course Numbered 1-199)</td>
<td>8-11</td>
</tr>
</tbody>
</table>

**Total Units** 60

### Bookkeeping Skills Certificate

**Program Learning Outcomes:**
1. Develop, create and maintain a proper bookkeeping system for a business organization.
2. Create, manage and maintain records and financial statements for managers of a business organization.

**Program Description:**

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.

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 businesses. 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, in Accounting, a Certificate of Achievement and an Associate of Science degree in Accounting.

**Core Courses-Level I**
- ACCT 151A Introduction to Accounting: Bookkeeping Concepts 4 units
- BUS 5 Business Information Systems 4 units
- CABT 110A Computer Keyboarding-Alphabet Keys 0.5 units
- CABT 110B Computer Keyboarding-Numbers/Symbols 0.5 units
- CABT 102 10-Key Calculator 1 unit

**Required Courses:**
- ENGL 100 Elements of Writing 3 units
  or
- ENGL 1A/1AH/1AMC/1AMCH 3 units
  or
- CABT 157 Business and Technical Writing 3 units

**Total Units** 13-16

### Accounting Courses

**ACCT 1A Financial Accounting**

4 units; 4 hours Lecture, 1 hour Laboratory

Recommended Preparation: ACCT 151A; Eligibility for ENGL 100 and READ 100.

Repeatability: May be taken 1 time.

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; UC. C-ID ACCT 110
ACCT 1B  Managerial Accounting
4 units; 4 hours Lecture, 1 hour Laboratory
Prerequisite: ACCT 1A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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; UC. C-ID ACCT 120

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.
Repeatability: May be taken 1 time.
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 54A  Income Tax I, Individual
4 units; 4 hours Lecture
Prerequisite: READ 100 ENGL 100.
Recommended Preparation: ACCT 151A or ACCT 1A; Eligibility for MATH 154.
Repeatability: May be taken 1 time.
Teaches federal and California tax principles, planning and compliance. Focuses on individual taxpayers, computerized tax projects, qualifies for California Tax Preparer (CTEC) QUALIFYING education. 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.
Repeatability: May be taken 1 time.
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.
Transfer Credit: Transfers to CSU.

ACCT 155  Payroll Accounting
3 units; 3 hours Lecture, 2 hours Laboratory
Prerequisite: ACCT 151A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Introduces 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.

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.
Repeatability: May be taken 1 time.
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.
Repeatability: May be taken 1 time.
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
Prerequisite: ACCT 151A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Introduces use of QuickBooks from the accounting practitioner’s perspective. 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
4 units; 3 hours Lecture, 2 hours Laboratory
Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Teaches the financial planning process of money management including budgeting, credit and debt analysis, investments options (stocks, bonds, and mutual funds), acquiring real estate, and retirement planning. Outlines various methods to establish wealth to maintain an independent and secure financial life. This course may be offered in a Distance Learning Format.
Transfer Credit: Transfers to CSU.
FIN 10 Introduction to Investments
4 units; 3 hours Lecture, 2 hours Laboratory
Recommended Preparation: MATH 154 and/or ENGL 100.
Repeatability: May be taken 1 time.
Surveys of investment management and investment alternatives with particular emphasis on the equity markets including 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. Involves the use of computers and Internet-based research. This course maybe offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

FIN 110 Small Business Finance
3 units; 3 hours Lecture
Repeatability: May be taken 1 time.
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.

ADAPTIVE PHYSICAL EDUCATION
Health, Athletics, Wellness, and Kinesiology Division
Division Dean: Ian Haslam
Division Office, Room 1102
Michel Witzig, Program Chair, (831) 479-6576
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 786-4734
Call (831) 479-6266 for more information
http://www.cabrillo.edu/programs

Adaptive Physical Education Courses

ADAPT 90 Adaptive Swimming
0.5 - 2 units; 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Provides instruction on basic swimming strokes and water safety skills for physically limited students and developmentally delayed learners. A built in ramp and a water chair are available at poolside.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity courses combined: maximum credit- 4 units.

ADAPT 91 Adaptive Bowling
0.5 - 2 units; 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Provides instruction on the techniques of bowling for physically limited students and developmentally delayed learners. Class held off campus.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity courses combined: maximum credit- 4 units.

ADAPT 92 Wheelchair Basketball
0.5 - 2 units; 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Improvement of physical conditioning and basketball skills for competitive wheelchair athletes.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity courses combined: maximum credit- 4 units.

ADAPT 93 Exercise and Fitness-Adaptive
0.5 - 2 units; 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Provides instruction on strength, endurance, flexibility, balance, and cardiovascular conditioning for physically limited students and developmentally delayed learners. Instructor and student develop a program to meet student’s unique needs.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity courses combined: maximum credit- 4 units.

ADAPT 94 Adaptive Tennis
0.5 - 1.5 units; 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Provides instruction on basic tennis strokes and strategy in singles and doubles play for physically limited students and developmentally delayed learners.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity courses combined: maximum credit- 4 units.

ADAPT 96 Adaptive Yoga
0.5 - 2 units; 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Provides adapted instruction on asanas (physical postures) for physically limited students with attention to breath awareness and postural alignment to develop strength, endurance, flexibility, balance and to reduce stress. Develops awareness and consciousness to establish the mind/body connection.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity courses combined: maximum credit- 4 units.
Allied Health Courses

ALH 100A Introduction to Health Careers
1 unit; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Examines selected areas of study in the field of Allied Health, including but not limited to Nursing, Radiologic Technology, Dental Hygiene, Medical Assistant, and careers in disability and rehabilitation. May include on-site experience and/or intensive study of a topic applicable to one or more of the Allied Health career areas. May be offered in a Distance-Learning Format.

ALH 100A-Z Special Topics in Allied Health Careers
0.5 - 3 units; 0.5 hour Lecture or 1.5 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Examines selected areas of study in the field of Allied Health, including but not limited to Nursing, Radiologic Technology, Dental Hygiene, Medical Assistant, and careers in disability and rehabilitation. May include on-site experience and/or intensive study of a topic applicable to one or more of the Allied Health career areas. May be offered in a Distance-Learning Format.

ALH 101 A Review of Anatomy and Physiology
2 units; 2 hours Lecture
Prerequisite: BIO 4 and BIO 5.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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. May be offered in a Distance-Learning Format.

ALH 200A-Z Special Topics in Allied Health
0.5 - 4 units; 0.1 hour Lecture, 0.2 hour Laboratory
Recommended Preparation: Can be specified with each individual course.
Repeatability: May be taken 1 time.
Special topics courses designed to prepare students for success in Allied Health Programs and their prerequisites.
## American Studies A.A. Degree

### Program Description:

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.

#### Model Program in American Studies

An Associate Degree requires 60 units appropriate to your educational goal, to include general education and at least 18 units in a major. Courses should be selected to meet the lower-division major preparation requirements at your intended transfer university. These specific requirements can be found at www.assist.org for 4-year public institutions in California. Please see a counselor for advisement to ensure you are taking the best possible courses given your goal.

### Core Courses (13 Units)

- **HIST 17A**: United States History to 1865
- **HIST 17B**: United States History since 1865
- **HIST 17H**: Honors United States History to 1865
- **HIST 17BH**: Honors United States History since 1865
- **ANTHR 3**: Introduction to Anthropology: Archaeology
- **ANTHR 2H**: Honors Introduction to Anthropology: Cultural (Honors)
- **ANTHR 1**: Introduction to Anthropology: Biological
- **ANTHR 1H**: Honors Introduction to Anthropology: Biological
- **ANTHR 2**: Introduction to Anthropology: Cultural
- **ANTHR 3**: Introduction to Anthropology: Archaeology
- **ANTHR 8**: Anthropology of Religion
- **ANTHR 13**: Forensic Anthropology

### Electives (Transfer):

- Any Course Number 1-99

<table>
<thead>
<tr>
<th>Core Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 17A</td>
<td>3</td>
</tr>
<tr>
<td>HIST 17B</td>
<td>3</td>
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<tr>
<td>HIST 17H</td>
<td>3</td>
</tr>
<tr>
<td>HIST 17BH</td>
<td>3</td>
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<tr>
<td>ANTHR 3</td>
<td>3</td>
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<tr>
<td>ANTHR 2H</td>
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<td>ANTHR 1</td>
<td>3</td>
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<td>ANTHR 1H</td>
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<td>ANTHR 2</td>
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<td>ANTHR 3</td>
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<tr>
<td>ANTHR 8</td>
<td>3</td>
</tr>
<tr>
<td>ANTHR 13</td>
<td>3</td>
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</tbody>
</table>

### Total Units

- **60**
Approved Electives
(Choose 9 units)

ANTHR 7  Peoples and Cultures of Non-Western Tradition: North America. .................. 3
ANTHR 8  Anthropology of Religion ......................................................... 3
ANTHR 13 Forensic Anthropology ............................................................. 3
ANTHR 6  Peoples and Cultures of Non-Western Tradition: California. ............................ 3
PSYCH 1  General Psychology ................................................................. 3
or
PSYCH 1H Honors General Psychology ................................................... 3
SOC 1  Introduction to Sociology: Understanding Society ........................................... 3
or
SOC 1H Honors Introduction to Sociology: Understanding Society ......................... 3
SOC 2  Contemporary Social Problems ......................................................... 3
or
SOC 2H Honors Contemporary Social Problems ................................................ 3

Electives (Transfer):
(Any Course Number 1-99) ........................................................................ 8

Total Units 60

Anthropology Courses

ANTHR 1  Introduction to Anthropology: Biological
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Surveys the basic principles of biological 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; UC.

ANTHR 1H Honors Introduction to Anthropology: Biological
3 units; 3 hours Lecture
Prerequisite: Honors Standing.
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken 1 time.
Surveys the basic principles of biological 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. Highlights student research, writing, and reporting, both individually and as part of a learning community, and will often meet in a seminar format.
Transfer Credit: Transfers to CSU; UC.

ANTHR 2  Introduction to Anthropology: Cultural
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Presenters 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.
Transfer Credit: Transfers to CSU; UC.

ANTHR 2H Introduction to Anthropology: Cultural (Honors)
3 units; 3 hours Lecture
Prerequisite: Honors standing and.
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken 1 time.
Presenters 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. Highlights student research, writing, and reporting, both individually and as part of a learning community, and will often meet in a seminar format.
Transfer Credit: Transfers to CSU; UC.

ANTHR 3  Introduction to Anthropology: Archaeology
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Introduces the basic theories and principles of contemporary scientific archaeology and the methods through which archaeologists recover and interpret the past. Topics include the history of archaeology; basic methods for excavation, analysis, and interpretation of material remains; strategies for explaining cultural behavior and cultural change; and the relevance of archaeological studies to contemporary social issues. Not a survey of world prehistory, but draws on case studies of significant worldwide archaeological sites that span the entire period of human existence.
Transfer Credit: Transfers to CSU; UC.
ANTHR 6  Peoples and Cultures of Non-Western Tradition: California
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Surveys the origins and evolution of California Indian cultures and examines the historical and cultural experiences likely to have contributed to the present-day conditions of native communities and individuals.
Transfer Credit: Transfers to CSU; UC.

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.
Repeatability: May be taken 1 time.
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; UC.

ANTHR 8  Anthropology of Religion
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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; UC.

ANTHR 13  Forensic Anthropology
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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.
ART HISTORY
Visual, Applied, and Performing Arts Division
John Graulty, Division Dean
Division Office, Room VAPA1007
Tobin Keller, Co-Program Chair, (831) 479-6323
Rebecca Ramos, Co-Program Chair, (831) 477-3364
Brian Legakis, Art History Program Coordinator, (831) 479-6368
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 786-4734
Call (831) 479-6464 for more information
http://www.cabrillo.edu/programs

Associate in Arts in Art History for Transfer

The major is available at UC and CSU systems, and at other colleges and universities, and art museum visits.

The Art History Program offers a course of study for students to learn about 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.

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.

The following is required for all A.A.-T or A.S.-T degrees:

- Completion of 60 CSU-transferable semester units.
- Minimum grade-point average (GPA) of at least 2.0 in all CSU-transferable coursework. While a minimum of 2.0 is required for admission, some majors may require a higher GPA.
- Completion of a minimum of 18 semester units in the major with a letter grade of “C” or better. A “P” grade is not acceptable for courses in the major.
- Certified completion of the California State University General Education-Breadth pattern (CSU GE Breadth) or the Intersegmental General Education Transfer Curriculum (IGETC) pattern.

Completion of CSU or IGETC

General Education Requirements GE Units
Core Courses (9 units) 37 - 39
AH 20A Survey of Art from Prehistoric Through Medieval Periods 3
AH 20B Survey of Art from the Renaissance to the Present 3
ART 2A Drawing and Composition 3
List A - Select from the following: (3-6 units) 3
AH 16 Art of India and Southeast Asia 3
AH 17 Art of China, Korea and Japan 3
AH 19 Art of the Americas 3
AH 52 Latin American Art 3
List B - Select 1 course from the following: (3 units) 3
ART 2B Drawing and Composition 3
ART 3A Life Drawing 3
ART 3B Life Drawing 3
ART 7A Ceramics–Hand Building 3
ART 7B Ceramics–Wheel Forming 3
ART 34A Sculpture: Direct Processes I 3
ART 34B Sculpture: Direct Processes II 3
ART 37A Watercolor I 3
ART 37B Watercolor II 3
AP 9A Beginning Photography 3
AP 9B Intermediate Photography 3
DM 1 Introduction to Digital Media 4
Any beginning level Studio Art course
List C - Select 1 course from the following: (3-5 units) 3
Any course not used from List A or List B above
Any Art History course
Any Anthropology course in CSU GE Area D
AP 15 History of Photography 3
BBS 32 Issues of Linguistic and Cultural Diversity in Education, History and Politics 3
ECE 32 Child, Family and Community 3
GEOG 2 Cultural Geography 3
GEOG 4 World Regional Geography 3
Any History Course
JOURN 21 Mass Communications 3
Any Philosophy course, except PHILO 12 or PHILO 49
PSYCH 1 General Psychology 3
PSYCH 1H Honors General Psychology 3
PSYCH 6 Introduction to Social Psychology 3
PSYCH 8 Introduction to Developmental Psychology 3
PSYCH 31 Introduction to Abnormal Psychology 3
SOC 3 Introduction to Race and Ethnicity 3
Art History | 65

SOC 8  Introduction to Latina/o Studies  ......................... 3
WS 1  Introduction to Women’s Studies  .......................... 3
WS 2  Introduction to Women’s Studies: Global Perspectives  3
WS 7  Psychology of Women  ................................. 3
WS 11  Feminist Theory and Methodology  ....................... 3

Any foreign language course (except ASL)

Note: All courses except ART courses, AP 9B, DM 1 and DM 4 are also general education courses.

Electives:  Units
(Any Course Numbered 1-99)  0 - 3

Art History A.A. Degree

Program Description:

Model Program for Art History

An Associate Degree requires 60 units appropriate to your educational goal, to include general education and at least 18 units in a major. Courses should be selected to meet the lower-division major preparation requirements at your intended transfer university. These specific requirements can be found at www.assist.org for 4-year public institutions in California. Please see a counselor for advisement to ensure you are taking the best possible courses given your goal.

The department presents the following suggested model program for this major. The courses listed below may or may not be appropriate depending on your specific goal. Please see a counselor for advisement for transfer to any 4-year institution.

A.A. General Education  30 Units

Art History Core Courses (12-15 Units)

AH 11  Ancient Art  ................................. 3
or
AH 11H  Honors Ancient Art  ......................... 3
AH 12  Middle Ages: Art/Mediterranean World & Europe (A.D. 300-1400)  3
AH 13  Renaissance to Mid-19th Century  ............... 3
AH 14  Modern Art  ................................. 3
or
AH 20A  Survey of Art from Prehistoric Through Medieval Periods  3
and
AH 20B  Survey of Art from the Renaissance to the Present  3

Multicultural Art History Courses (6 Units)  Units

AH 16  Art of India and Southeast Asia  ......................... 3
AH 17  Art of China, Korea and Japan  ......................... 3
AH 18  Art in America to 1900  ......................... 3
AH 19  Art of the Americas  ......................... 3
AH 52  Latin American Art  ......................... 3

Art History Electives (3-9 Units)  Units

AH 10  Appreciation/Introduction to the Visual Arts  .... 3
AH 53  Contemporary Art and Visual Culture  ............... 3
AH 77  Correlation of the Arts  ......................... 3

Studio Art Courses (6 Units)  Units

ART 2A  Drawing and Composition  ......................... 3
ART 4  Beginning Design: Design and Color  ................ 3
ART 5  Beginning Design: 3-Dimensional Form  ............... 3

Recommended from Related Disciplines:  Units

Four semesters of French or German;

HIST 4AB, 4ABH, AP 15, AP 45, and one multicultural course in history  3

Electives (Transfer):  Units
(Any Course Number 1-99)  3

Total Units  60

Art History Courses

AH 10  Appreciation/Introduction to the Visual Arts

3 units; 3 hours Lecture

Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Repeatability: May be taken 1 time.

Introduces the forms, processes and styles of the visual arts. May be offered in a Distance-Learning format.

Transfer Credit: Transfers to CSU; UC.

AH 11  Ancient Art

3 units; 3 hours Lecture

Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Repeatability: May be taken 1 time.

Studies the art of Prehistory, Ancient Near East, Egypt, Crete, Greece, and Rome through art historical analysis and related approaches to viewing art and images.

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

AH 11H  Honors Ancient Art

3 units; 3 hours Lecture

Prerequisite: Honors standing.

Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH; Eligibility for READ 100.

Repeatability: May be taken 1 time.

Studies the art of Prehistory, Ancient Near East, Egypt, Crete, Greece, and Rome through art historical analysis and related approaches to viewing art and images. Highlights student research, writing, and reporting, both individually and as part of a learning community, and will often meet in a seminar format.

Transfer Credit: Transfers to CSU; UC, with limits: Students who enroll in AH 11/11H should not enroll or have credit in AH 20A. See “Transfer Credit in Art History” above, 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
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Studies the development of Christian and Early Islamic art in the
Mediterranean World and in Europe during the Early Medieval,
Romanesque and Gothic eras.
Transfer Credit: Transfers to CSU; UC, with limits: Students who enroll in AH
12 should not enroll or have credit in AH 20A. See "Transfer Credit in Art
History" above, for more detailed information on transfer of Art History courses.

AH 13  Renaissance to Mid-19th Century
3 units; 3 hours Lecture
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Studies the Art of the Renaissance in Europe, including the art of the
Baroque, Rococo, and early Modern eras through art historical analysis.
Transfer Credit: Transfers to CSU; UC, with limits: Students who enroll in AH
13 should not enroll or have credit in AH 20B. See "Transfer Credit in Art
History" above, for more detailed information on transfer of Art History courses.

AH 14  Modern Art
3 units; 3 hours Lecture
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Studies the art of Europe and the United States from the mid-19th cen-
tury to the present through historical analysis and related approaches to
viewing art and images.
Transfer Credit: Transfers to CSU; UC, with limits: Students who enroll in AH
14 should not enroll or have credit in AH 20B. See "Transfer Credit in Art
History" above, for more detailed information on transfer of Art History courses.

AH 16  Art of India and Southeast Asia
3 units; 3 hours Lecture
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Surveys 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; UC.

AH 17  Art of China, Korea and Japan
3 units; 3 hours Lecture
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Surveys the history of the visual arts of China, Korea and Japan from
ancient to modern times.
Transfer Credit: Transfers to CSU; UC.

AH 18  Art in America to 1900
3 units; 3 hours Lecture
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Surveys the native arts and European art traditions in colonial United
States and Canada to 1900.
Transfer Credit: Transfers to CSU; UC.

AH 19  Art of the Americas
3 units; 3 hours Lecture
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Surveys the history of the visual arts of Pre-Colombian cultures in
Latin America, especially Mexico.
Transfer Credit: Transfers to CSU; UC.

AH 20A  Survey of Art from Prehistoric
Through Medieval Periods
3 units; 3 hours Lecture
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Surveys Prehistoric, Ancient, Classical, Early Christian, Islamic, and
Medieval art. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC, with limits: Students who enroll in AH
20A should not enroll or have credit in AH 11/11H or 12. See "Transfer Credit
in Art History" above, for more detailed information on transfer of Art History
courses. C-ID ARTH 110

AH 20B  Survey of Art from the
Renaissance to the Present
3 units; 3 hours Lecture
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Surveys art of the Renaissance, Baroque, 19th and 20th centuries
through illustrated lectures. May be offered in a Distance-Learning
Format.
Transfer Credit: Transfers to CSU; 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" above, for more detailed information on transfer of Art History
courses.

AH 52  Latin American Art
3 units; 3 hours Lecture
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Surveys 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; UC.
### A.A. General Education

**Core (15 units)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AP 9A</td>
<td>Beginning Photography</td>
<td>3</td>
</tr>
<tr>
<td>AP 15</td>
<td>History of Photography</td>
<td>3</td>
</tr>
<tr>
<td>AP 42A</td>
<td>Alternative Photographic Processes I</td>
<td>3</td>
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<tr>
<td>or</td>
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<td></td>
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<tr>
<td>AP 42</td>
<td>Alternative Photographic Processes</td>
<td>3</td>
</tr>
<tr>
<td>AP 46A</td>
<td>Digital Photography</td>
<td>3</td>
</tr>
<tr>
<td>AP 47</td>
<td>Lighting for Traditional and Digital Photography</td>
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</table>

**AP Electives (6 units)**

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<tr>
<th>Course</th>
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<tr>
<td>AP 9B</td>
<td>Intermediate Photography</td>
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<td>AP 9C</td>
<td>Advanced Photography</td>
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<tr>
<td>AP 14</td>
<td>Introduction to Video Art</td>
<td>0.5-3</td>
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<td>AP 28</td>
<td>Medium and Large Format Photography</td>
<td>0.5-3</td>
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<tr>
<td>AP 45</td>
<td>Contemporary Trends in Photography</td>
<td>3</td>
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<tr>
<td>AP 42B</td>
<td>Alternative Photographic Processes II</td>
<td>3</td>
</tr>
<tr>
<td>AP 46B</td>
<td>Digital Photography</td>
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**Approved Electives (6-7 units)**

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</tr>
<tr>
<td>AH 20B</td>
<td>Survey of Art from the Renaissance to the Present</td>
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<tr>
<td>AH 53</td>
<td>Contemporary Art and Visual Culture</td>
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<tr>
<td>ART 2A</td>
<td>Drawing and Composition</td>
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<tr>
<td>ART 2B</td>
<td>Drawing and Composition</td>
<td>3</td>
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<tr>
<td>ART 4</td>
<td>Beginning Design: Design and Color</td>
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<td>ART 27</td>
<td>Graphic Design</td>
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<td>Introduction to Digital Media</td>
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<td>DM 3</td>
<td>Design in Society</td>
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<td>DM 4</td>
<td>Digital Graphics</td>
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<tr>
<td>DM 12</td>
<td>Photoshop Techniques I</td>
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<tr>
<td>DM 34</td>
<td>Introduction to Video Production</td>
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<tr>
<td>JOURN 20A</td>
<td>Introduction to Photojournalism</td>
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**Electives: (2-3 units)**

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**Total Units**

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<td>60</td>
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### Digital Photography Skills Certificate

#### 12.5-15 Units

<table>
<thead>
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<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AP 14</td>
<td>Introduction to Video Art</td>
<td>0.5-3</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DM 34</td>
<td>Introduction to Video Production</td>
<td>3</td>
</tr>
<tr>
<td>AP 45</td>
<td>Contemporary Trends in Photography</td>
<td>3</td>
</tr>
<tr>
<td>AP 46A</td>
<td>Digital Photography</td>
<td>3</td>
</tr>
<tr>
<td>AP 46B</td>
<td>Digital Photography</td>
<td>3</td>
</tr>
<tr>
<td>AP 47</td>
<td>Lighting for Traditional and Digital Photography</td>
<td>3</td>
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</tbody>
</table>

**Total Units**

<table>
<thead>
<tr>
<th>Units</th>
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<tbody>
<tr>
<td>12.5-15</td>
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</tbody>
</table>
Historical and Alternative Photographic Processes Skills Certificate
12.5-15 Units

AP 9A Beginning Photography 3
AP 9B Intermediate Photography 3
AP 15 History of Photography 3
AP 28 Medium and Large Format Photography 0.5-3
or
AP 32 Combined Processes 0.5-3
AP 42 Alternative Photographic Processes 3

Total Units 12.5-15

Traditional Black and White Photography Skills Certificate
12.5-15 Units

AP 9A Beginning Photography 3
AP 9B Intermediate Photography 3
AP 9C Advanced Photography 3
AP 28 Medium and Large Format Photography 0.5-3
AP 47 Lighting for Traditional and Digital Photography 3

Total Units 12.5-15

Art Photography Courses

AP 6 Introduction to Digital Photography
0.5 - 3 units; 0.5 hour Lecture, 1 hour Laboratory
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Introduces basic digital photography skills: camera operation and exposure controls; Macintosh computer basics; elementary software image quality adjustment techniques; printing and digital output; composition; visual communication. Course work includes lecture, demonstration, critique, and computer laboratory work. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC.

AP 9A Beginning Photography
3 units; 2 hours Lecture, 4 hours Laboratory
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Introduces the basic principles, practice and aesthetics of black and white photography including camera operation, film processing, 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; UC.

AP 9B Intermediate Photography
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: AP 9A or equivalent skills.
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Continues black and white photography practices from AP 9A with a focus on fiber-base paper printing, refined exposure methods, and thematic projects. Introduces medium format photography, basic Zone System concepts and post-processing manipulation of prints and negatives. Activities include lecture, demonstration, critique, darkroom laboratory work and field studies.
Transfer Credit: Transfers to CSU; UC.

AP 9C Advanced Photography
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: AP 9B or equivalent skills.
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Continues the study of black and white photography from AP 9B with a focus on refining printing techniques and Zone System practices, thematic projects, and portfolio development. Activities include lecture, demonstration, critique, darkroom laboratory work and field studies.
Transfer Credit: Transfers to CSU.

AP 14 Introduction to Video Art
0.5 - 3 units; 0.5 hour Lecture, 1 hour Laboratory
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Introduces video art through hands-on production, analysis of video art work, and exploration of the evolution of video as an art form. Provides introductory training in digital video and audio production and digital post-production techniques while examining formal, conceptual, social, and structural strategies of video art practice. Taught on Macintosh computers. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC.

AP 15 History of Photography
3 units; 3 hours Lecture
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Surveys the history of photography from its origins to the advent of the digital age in the 20th Century. Examines the practice of photography as an art form and as a form of visual communication in historical, socio-political and cultural contexts. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC.
AP 28  Medium and Large Format Photography
0.5 - 3 units; 0.5 hour Lecture, 1 hour Laboratory
Prerequisite: AP 9A or AP 46A or equivalent skills.
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatable: May be taken 1 time.

Introduces techniques and aesthetics of medium and large format photography through hands-on training with medium format camera systems and 4X5 view cameras. Includes specialized exposure, processing and printing techniques for B&W sheet and roll film, 4X5 instant materials, and digital imaging options.  
*Transfer Credit: Transfers to CSU.*

AP 32  Combined Processes
0.5 - 3 units; 0.5 hour Lecture, 1 hour Laboratory
Prerequisite: AP 6 or AP 9A or ART 4 or DM 1 or equivalent skills.
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatable: May be taken 1 time.

Explores the use of traditional and digital imaging techniques with traditional, digital and alternative media. Includes traditional and digital techniques for creating enlarged negatives for contact printing, as well as methods for combining photographic imagery with other art media and non-traditional materials.  
*Transfer Credit: Transfers to CSU.*

AP 40AZ  Studies in Photography
1 - 3 units; 0.5 hour Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatable: May be taken 1 time.

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. May be offered in a Distance-Learning Format.  
*Transfer Credit: Transfers to CSU.*

AP 42A  Alternative Photographic Processes I
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: AP 46A or equivalent skills AP 9A or equivalent skills.
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatable: May be taken 1 time.

Introduces creative photographic image making utilizing historical, contemporary, and non-traditional applications of silver-based and non-silver photographic processes. Includes mixed media combinations and digital imaging techniques. Activities include lecture, demonstration, critique, laboratory work and field studies.  
*Transfer Credit: Transfers to CSU.*

AP 42B  Alternative Photographic Processes II
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: AP 42A or equivalent skills.
Hybrid Requisite: Completion of or concurrent enrollment in ART 51L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatable: May be taken 1 time.

Continues the investigation of creative photographic image making utilizing historical, contemporary, and non-traditional photographic materials and processes from AP 42A. Activities include lecture, demonstration, critique, laboratory work and field studies.  
*Transfer Credit: Transfers to CSU.*

AP 45  Contemporary Trends in Photography
3 units; 3 hours Lecture
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatable: May be taken 1 time.

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. May be offered in a Distance-Learning Format.  
*Transfer Credit: Transfers to CSU; UC.*

AP 46A  Digital Photography
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: AP 6 or AP 9A or equivalent skills and CS 1L or DM 1 or equivalent skills.
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatable: May be taken 1 time.

Teaches tools and techniques for creating expressive photographic images with Adobe PhotoShop including intermediate camera skills, image capture, importing, manipulating, printing and digital output. Covers menus and tools, selection controls, retouching, global and selective image adjustments, filters and effects, and compositing. Taught on Macintosh. Adaptable to Windows. Students may use either film or digital cameras. May be offered in a Distance-Learning Format.  
*Transfer Credit: Transfers to CSU.*

AP 46B  Digital Photography
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: AP 46A or equivalent skills.
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatable: May be taken 1 time.

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. May be offered in a Distance-Learning Format.  
*Transfer Credit: Transfers to CSU.*
AP 47  Lighting for Traditional and Digital Photography
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: AP 9A or AP 46A or equivalent skills.
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.
Recommended Preparation: AP 9B or AP 28 or equivalent skills; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Introduces fine art and commercial applications of studio lighting equipment for film and digital photography. Covers basic lighting principles and techniques for lighting, tabletop setups, and larger sets.
Transfer Credit: Transfers to CSU.

ART–STUDIO
Visual, Applied, and Performing Arts Division
John Graulty, Division Dean
Division Office, Room VAPA1007
Tobin Keller, Co-Program Chair, (831) 479-6323
Rebecca Ramos, Co-Program Chair, (831) 477-3364
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 786-4734 for appointment
Call (831) 479-6464 for more information
http://www.cabrillo.edu/programs

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

Program Description:
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 curriculum offers 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 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. 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
An Associate Degree requires 60 units appropriate to your educational goal, to include general education and at least 18 units in a major. Courses should be selected to meet the lower-division major preparation requirements at your intended transfer university; these specific requirements can be found at www.assist.org for 4-year public institutions in California. Please see a counselor for advisement to ensure you are taking the best possible courses given your goal.
The department presents the following suggested model program for this major. The courses listed below may or may not be appropriate depending on your specific goal. Please see a counselor for advisement for transfer to any 4-year institution.

A.A. General Education 30 Units
Core Courses (12 units)
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) Units
AH 11H Honors Ancient Art 3
or
AH 12  Middle Ages: Art/Mediterranean World & Europe (A.D. 300-1400) 3
AH 13  Renaissance to Mid-19th Century 3
AH 14  Modern Art 3

Studio Art Options (9 units) Units
Select 9 units from the following options:

Ceramics Option
ART 7A  Ceramics–Hand Building 3
ART 7B  Ceramics–Wheel Forming 3
ART 72A  Ceramics Process I 3

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

Drawing Option Units
ART 3A  Life Drawing 3

Periods . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Art Studio Courses

ART 2A  Drawing and Composition
3 units; 2 hours Lecture, 4 hours Laboratory
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC.

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.
Repeatability: May be taken 1 time.
Refines and expands technical drawing skills from ART 2A with an emphasis on personal expression, thematic development, and an introduction to the use of color. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC.

ART 3A  Life Drawing
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ART 2A.
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Teaches fundamentals of the drawing of the human figure. Emphasizes personal interpretation and form. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC.

ART 3B  Life Drawing
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ART 3A.
Hybrid Requisite: Completion of or concurrent enrollment in ART 51L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Continues development of fundamental skills of the representation of the human figure. Drawing from life. Emphasizes composition. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC.

ART 4  Beginning Design: Design and Color
3 units; 2 hours Lecture, 4 hours Laboratory
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Introduces the concepts, applications, and historical references related to two-dimensional art and composition, including the study of the basic principles and elements of line, shape, texture, value, color and spatial illusion. Develops a visual vocabulary for creative expression through lecture presentations, studio projects, problem solving, and written assignments. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC.
ART 5  
**Beginning Design: 3-Dimensional Form**
3 units; 2 hours Lecture, 4 hours Laboratory
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
  Introduces design elements and principles as they apply to 3-dimensional 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. Materials fee may apply.
*Transfer Credit:* Transfers to CSU; UC.

ART 7A  
**Ceramics–Hand Building**
3 units; 2 hours Lecture, 4 hours Laboratory
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
  Provides beginning level instruction in clay processes covering handbuilding methods only, glazing, and firing procedures. Explores creative design and technical problem-solving. Materials fee may apply.
*Transfer Credit:* Transfers to CSU; UC.

ART 7B  
**Ceramics–Wheel Forming**
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ART 7A.
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.
Recommended Preparation: ART 5; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
  Provides beginning level instruction in clay processes covering wheel throwing methods only, glazing, decorating, and firing procedures. Explores creative design and technical problem-solving. Materials fees may apply.
*Transfer Credit:* Transfers to CSU; UC.

ART 8A  
**Small Scale Metal/Jewelry**
3 units; 2 hours Lecture, 4 hours Laboratory
Recommended Preparation: ART 4 or ART 5; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
  Small Metals and Jewelry is 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. Materials fee may apply.
*Transfer Credit:* Transfers to CSU.

ART 10A  
**Beginning Color on Metal**
0.5 - 3 units; 0.5 hour Lecture, 1 hour Laboratory
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.
Recommended Preparation: ART 11A; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
  Investigates concepts of color with metal and technical applications of color to metal. Color technologies may include patina, vitreous enamels, resins, felt pens, color pencil, and or combination of colored metal i.e., anodized aluminum, niobium, colored tin and re-purposed metal. Materials fees may apply.
*Transfer Credit:* Transfers to CSU.

ART 11A  
**Beginning Casting: Small Scale Metal/Jewelry**
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ART 11A.
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.
Recommended Preparation: ART 5; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
  Focuses on a variety of non ferrous metal casting processes and related technologies. Attention paid to safety practices, jewelry design applications, use of related tools, supply sources, as well as development of technical skills and personal aesthetics. Materials fees may apply.
*Transfer Credit:* Transfers to CSU.

ART 11B  
**Intermediate Casting: Small Scale Metal/Jewelry**
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ART 11A.
Hybrid Requisite: Completion of or concurrent enrollment in ART 51L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
  Presents increased complexity in non ferrous small scale metals casting technologies. Materials fee may apply.
*Transfer Credit:* Transfers to CSU.

ART 21  
**Textile Surface Design**
1 - 3 units; 0.67 hour Lecture, 1.33 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
  Teaches the creation of wall pieces and fabric designs through transforming, dyeing and manipulating fibers and fabrics. Includes textile dyeing, printing, painting, stitching, assembling and embellishing. Teaches analysis of contemporary and historical art textiles. Materials fee may apply.
*Transfer Credit:* Transfers to CSU.

ART 23  
**Weaving**
1 - 3 units; 0.67 hour Lecture, 1.33 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
  Explores the ancient techniques of tapestry weaving and fosters the creation of personal projects. Teaches basics of loom and loom weaving as an art form and for making functional objects. Teaches construction of simple looms, spinning and dyeing. Surveys historical textiles and their relationship to the present. Materials fee may apply.
*Transfer Credit:* Transfers to CSU.

ART 24  
**Fiber Arts: Textile, Fiber, Paper**
0.5 - 3 units; 0.5 hour Lecture, 1 hour Laboratory
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
  Explores contemporary and historical fiber arts, their design and processes. Materials fees may apply.
*Transfer Credit:* Transfers to CSU.
ART 25A  Beginning Woodworking/Furniture Design
0.5 - 3 units; 0.5 hour Lecture, 1 hour Laboratory
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.
Recommended Preparation: ART 2A and ART 5; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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. Materials fee may apply.
Transfer Credit: Transfers to CSU.

ART 25B  Intermediate Woodworking/Furniture Design
0.5 - 3 units; 0.5 hour Lecture, 1 hour Laboratory
Prerequisite: ART 25A.
Hybrid Requisite: Completion of or concurrent enrollment in ART 51L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Builds on concepts, practices, and art of furniture making covered in ART 25A. Emphasizes explorations in mixed media and alternative materials in furniture making. Students will engage in more advanced design concepts (ergonomics) and woodworking techniques. Materials fee may apply.
Transfer Credit: Transfers to CSU.

ART 25CA  Advanced Woodworking/Furniture Design
0.5 - 3 units; 0.5 hour Lecture, 1 hour Laboratory
Prerequisite: ART 25B.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Develops a complex investigation of design concepts and technical skills for woodworking and furniture making. Building on practices covered in ART 25B, this course explores mixed media and alternative materials, bent lamination construction, material formulation for custom finishes. Provides further training and practice in equipment and tool maintenance covered in 25A and 25B. Materials fee may apply.
Transfer Credit: Transfers to CSU.

ART 27  Graphic Design
3 units; 2 hours Lecture, 4 hours Laboratory
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.
Recommended Preparation: DM 1 and ART 4; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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. Materials fee may apply.
Transfer Credit: Transfers to CSU.

ART 28  Lettering/Typography
3 units; 2 hours Lecture, 4 hours Laboratory
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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. Materials fee may apply.
Transfer Credit: Transfers to CSU.

ART 31A  Painting I
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ART 2A and ART 4 or equivalent skills.
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Studies the practice and theory of painting with emphasis on individuality in painting techniques. Explores experimental methods and process for visual expression. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC.

ART 31B  Painting II
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ART 31A or equivalent skill.
Hybrid Requisite: Completion or concurrent enrollment in ART 51L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Continues the study of theory and practice of painting from ART 31A with emphasis on individual projects. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC.

ART 31C  Painting III
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ART 31B or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Continues the study of theory and practice of painting from ART 31B with emphasis on defining and developing individual direction and portfolio. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC pending review.

ART 32  Printmaking: Etching and Intaglio
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ART 2A.
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Teaches intaglio: the process of making multiple images of original designs or drawings on paper from etched metal plates. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC.
ART 33A  Screen Printing/Serigraphy I
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ART 4.
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Introduces the art and techniques of screen printing/serigraphy including stenciling, printing, care of prints, papers and proper studio use. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC, pending review.

ART 33B  Screen Printing/Serigraphy II
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ART 33A.
Hybrid Requisite: Completion of or concurrent enrollment in ART 51L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Continues screen printing/serigraphy techniques including advanced stenciling, registration methods, print care and curating, papers and proper studio use. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC, pending review.

ART 34A  Sculpture: Direct Processes I
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ART 5 or equivalent skills.
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Introduces beginning level materials and processes in sculpture. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC.

ART 34B  Sculpture: Direct Processes II
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ART 34A.
Hybrid Requisite: Completion of or concurrent enrollment in ART 51L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC.

ART 34C  Sculpture: Direct Process III
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ART 34B or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Continues the study of sculptural processes from ART 34B with an increased awareness of materials, which can be transformed through direct approach. Emphasizes the application of concept and presentation. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC, pending review.

ART 35  Sculpture: Casting
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ART 34A or equivalent skills.
Hybrid Requisite: Completion of or concurrent enrollment in ART 51L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Presents intermediate level bronze casting for sculptural purposes, utilizing lost wax method and rigid investments. Includes patination and presentation. Materials fee may apply.
Transfer Credit: Transfers to CSU.

ART 36  Sculpture: Moldmaking
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ART 5 or equivalent skills.
Hybrid Requisite: Completion of or concurrent enrollment in ART 51L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC.

ART 37A  Watercolor I
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ART 4.
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Presents painting with watercolor, using both transparent and gouache. Includes studio and outside landscapes, still life studies, abstract, and nonobjective problems. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC.

ART 37B  Watercolor II
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ART 37A.
Hybrid Requisite: Completion of or concurrent enrollment in ART 51L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC.

ART 38A  Metalsmithing I
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ART 11A or equivalent skills.
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.
Recommended Preparation: ART 4 ART 5; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Introduces direct non ferrous metalsmithing and metal forming processes of raising, sinking, chasing and forging. Processes and design concepts are applied to small scale sculpture and/or jewelry projects. Materials fee may apply.
Transfer Credit: Transfers to CSU.
ART 38B  Metalsmithing II
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ART 38A.
Hybrid Requisite: Completion of or concurrent enrollment in ART 51L.
Materials fee may apply.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Continues development of non ferrous small scale metal and jewelry art forming technologies.
Transfer Credit: Transfers to CSU.

ART 40AZ  Studies in Studio Art
1 - 3 units; 0.67 hour Lecture, 1.33 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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; 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 46  Artists' Books
1 - 3 units; 0.67 hour Lecture, 1.33 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.
Teaches construction of artists' books. May include the following structures: folded, stabb, sewn, sculptural, boxes and portfolios. Includes paste papers and marbled papers and use of transfers, collage, prints and mixed media. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC.

ART 50L  Gallery Viewing Lab
0.5 unit; 1 hour Independent Study
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Encourages students to develop skills in gallery art viewing and critical analysis, supplemented by video viewing, guest lectures, and Internet searches.
Transfer Credit: Transfers to CSU.

ART 51L  Museum Viewing Lab
0.5 unit; 1 hour Independent Study
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Encourages students to develop skills in museum art viewing and critical analysis supplemented by docent-led tours and/or reading of exhibition material.
Transfer Credit: Transfers to CSU.

ART 71  Intermediate Ceramics Process
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ART 7A and ART 7B.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC.

ART 72A  Ceramics Process I
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ART 7B.
Hybrid Requisite: Completion of and concurrent enrollment in ART 51L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC.

ART 73  Intermediate Intaglio Prints
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ART 2A and ART 32.
Hybrid Requisite: Completion of or concurrent enrollment in ART 51L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Investigates etching and intaglio techniques in the creation of original fine art prints. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC.
ASIAN STUDIES
Human Arts and Social Sciences Division
Isabel O'Connor, Division Dean
Division Office, Room 420
Rory O'Brien, Program Chair, (831) 479-6443
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 786-4734
Call (831) 479-6297 for more information
http://www.cabrillo.edu/programs
Asian Studies A.A. Degree

Program Description:
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 Asia 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 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 of 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
An Associate Degree requires 60 units appropriate to your educational goal, to include general education and at least 18 units in a major. Courses should be selected to meet the lower-division major preparation requirements at your intended transfer university—these specific requirements can be found at wwwassist.org for 4-year public institutions in California. Please see a counselor for advisement to ensure you are taking the best possible courses given your goal.

The department presents the following suggested model program for this major. The courses listed below may or may not be appropriate depending on your specific goal. Please see a counselor for advisement for transfer to any 4-year institution.

A.A. General Education

30 Units

Core Courses (10 units)

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<tr>
<td>CHIN 2</td>
<td>Elementary Chinese II</td>
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<tr>
<td>JAPAN 2</td>
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Choose four courses from the following: (10 units)

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<td>Art of India and Southeast Asia</td>
<td>3</td>
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<tr>
<td>AH 17</td>
<td>Art of China, Korea and Japan</td>
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<td>ECON 1A</td>
<td>Introduction to Macroeconomics</td>
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<td>ECON 1B</td>
<td>Introduction to Microeconomics</td>
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<td>GEOG 1</td>
<td>Physical Geography</td>
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<td>GEOG 2</td>
<td>Cultural Geography</td>
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<td>HIST 19A</td>
<td>Introduction to South and Southeast Asian History</td>
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<td>HIST 19B</td>
<td>Introduction to Chinese History</td>
<td>3</td>
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<td>HIST 19C</td>
<td>Introduction to Japanese History</td>
<td>3</td>
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<tr>
<td>PS 2</td>
<td>Comparative Government</td>
<td>3</td>
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</tbody>
</table>

Electives:
(Any Course Numbered 1-99) 10

Total Units 60

Prospective Asian Studies majors are encouraged to consult a Human Arts and Social Sciences instructor regarding recommended elective courses.

ASTRONOMY
Natural and Applied Sciences Division
Wanda Garner, Division Dean
Division Office, Room 701
Rick Nolthenius, Program Contact, (831) 479-6506
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 786-4734
Call (831) 479-6328 for more information
http://www.cabrillo.edu/programs

Astronomy A.S. Degree

Program Description:
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, enter a teacher credential program, 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, lower division astronomy will prepare students for a wide variety of science, with the unique skills that astronomers must bring to the study of systems that include widely differing physics which is usually not amenable to standard controlled experiments. 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**

This Associate Degree requires 60 units appropriate to your educational goal, to include general education and at least 30 units in a major. Courses should be selected to meet the lower-division major preparation requirements at your intended transfer university. Specific requirements can be found at www.assist.org for 4-year public institutions in California. Please see a counselor for advisement to ensure you are taking the best possible courses given your goal.

The department presents the following suggested model program for this major. The courses listed below may or may not be appropriate depending on your specific goal. Please see a counselor for advisement for transfer to any 4-year institution.

### A.S. General Education 21 Units

#### Core Courses (37 Units)

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<td>PHYS 4C</td>
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#### Approved Electives (2 units)

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<tr>
<td>ASTRO 28A-Z</td>
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or

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<tr>
<td>MATH 12H</td>
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</tbody>
</table>

**Total Units 60**

*Fall only; Spring only

### Astronomy Courses

#### ASTRO 3  Solar System Astronomy

3 units; 3 hours Lecture

Recommended Preparation: MATH 154; Eligibility for ENGL 100 and READ 100.

Repeatability: May be taken 1 time.

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; 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.

Repeatability: May be taken 1 time.

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; UC.*

#### ASTRO 7  Planets and Climate

3 units; 3 hours Lecture

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Repeatability: May be taken 1 time.

Applies scientific principles to explain planetary atmospheres, climate in general and Earth’s climate in particular, including current climate change causes and effects.

*Transfer Credit: Transfers to CSU; UC.*

#### ASTRO 8A  Observational Astronomy

1 unit; 1 hour Lecture, 2 hours Laboratory

Hybrid Requisite: Completion of or concurrent enrollment in the following courses: ASTRO 3 or ASTRO 4 or ASTRO 7.

Recommended Preparation: MATH 154; Eligibility for ENGL 100 and READ 100.

Repeatability: May be taken 1 time.

Involves observatory lab projects on stars, planets, the moon, galaxies, and in-class labs and demos on cloudy nights. Sometimes offered as a field course involving camping at dark-sky locations.

*Transfer Credit: Transfers to CSU; UC.*

#### ASTRO 9A  Astrophotography

1 unit; 1 hour Lecture, 2 hours Laboratory

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Repeatability: May be taken 1 time.

Covers photographic theory and practice at Cabrillo Observatory using telescopes and computers to image and optimize deep sky projects. Most imaging will be digital, but students with access to the photo lab may substitute some film projects. Includes optional weekend trip for dark 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.

Repeatability: May be taken 1 time.

Builds on ASTRO 9A, and includes more advanced digital and video imaging projects, and additional image processing software. Includes optional weekend trip to do dark sky imaging.

*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.
Repeatability: May be taken 1 time.
Builds on skills from ASTRO 9A and 9B using more creative and advanced techniques: experimental testing, high magnification photography, and videocam planetary imaging. Includes optional field trip for dark-sky work.
Transfer Credit: Transfers to CSU.

ASTRO 27 Field Astronomy at the Pinnacles
1 unit; 1 hour Lecture, 0.5 hour Laboratory
Corequisite: GEOL 27.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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. Includes car-camping at Pinnacles National Monument.
Transfer Credit: Transfers to CSU.

ASTRO 28A-Z Special Topics in Field Astronomy
1 unit; 1 hour Lecture, 0.5 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Presents a weekend field lecture/lab experience 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.

ATHLETICS Health, Athletics, Wellness, and Kinesiology Division
Ian Haslam, Division Dean
Division Office, Room 1102
Dale Murray, Athletic Director, (831) 479-6149
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 786-4734
Call (831) 479-6266 for more information
http://www.cabrillo.edu/programs

Athletics Courses

ATH 10 Athletic Conditioning
0.5 - 2 units; 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken a total of 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; UC, with limits: Any or all ATH & KIN activity courses combined: maximum credit-4 units.

ATH 11 Football Conditioning
0.5 - 3 units; 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken a total of 4 times.
Provides instruction in speed, agility, and strength for football conditioning.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all ATH & KIN activity courses combined: maximum credit-4 units.

ATH 15C Intercollegiate Athletics-Football
2 units; 10 hours Laboratory
Corequisite: ATH 16 or ATH 17.
Recommended Preparation: ATH 15CC; Eligibility for ENGL 100 and READ 100.
Repeatability: 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; UC, with limits: Any or all ATH & KIN activity courses combined: maximum credit-4 units.

ATH 15CC Pre-Season Intercollegiate Football
0.5 - 1.5 units; 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: 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; UC, with limits: Any or all ATH & KIN 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 a total of 4 times.
For men interested in intercollegiate competition in soccer. Open entry/open exit.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all ATH & KIN activity courses combined; maximum credit-4 units.
ATH 15E  Intercollegiate Athletics-Soccer: Women
2 units; 10 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: 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; UC, with limits: Any or all ATH & KIN activity courses combined: maximum credit- 4 units.

ATH 15F  Intercollegiate Athletics-Water Polo: Women
2 units; 10 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: 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; UC, with limits: Any or all ATH & KIN activity courses combined: maximum credit- 4 units.

ATH 15G  Intercollegiate Athletics-Volleyball: Women
2 units; 10 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: 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; UC, with limits: Any or all ATH & KIN activity courses combined: maximum credit- 4 units.

ATH 15H  Intercollegiate Athletics-Water Polo: Men
2 units; 10 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: 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; UC, with limits: Any or all ATH & KIN activity courses combined: maximum credit- 4 units.

ATH 15I  Intercollegiate Athletics-Basketball: Men
1 - 2 units; 10 hours Laboratory
Corequisite: ATH 18 in fall semester.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 4 times.
For men interested in intercollegiate competition in basketball. Open entry/open exit.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all ATH & KIN activity courses combined: maximum credit- 4 units.

ATH 15J  Intercollegiate Athletics-Basketball: Women
1 - 2 units; 10 hours Laboratory
Corequisite: ATH 19 in fall semester.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: 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; UC, with limits: Any or all ATH & KIN activity courses combined: maximum credit- 4 units.

ATH 15K  Intercollegiate Athletics-Baseball
2 units; 10 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: 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; UC, with limits: Any or all ATH & KIN activity courses combined: maximum credit- 4 units.

ATH 15L  Intercollegiate Athletics-Golf
2 units; 10 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: 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; UC, with limits: Any or all ATH & KIN activity courses combined: maximum credit- 4 units.

ATH 15M  Intercollegiate Athletics-Softball
2 units; 10 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: 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; UC, with limits: Any or all ATH & KIN activity courses combined: maximum credit- 4 units.

ATH 15N  Intercollegiate Athletics-Swimming and Diving: Men
2 units; 10 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: 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; UC, with limits: Any or all ATH & KIN activity courses combined: maximum credit- 4 units.
ATH 15P Intercollegiate Athletics-Swimming and Diving: Women
2 units; 10 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: 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; UC, with limits: Any or all ATH & KIN activity courses combined; maximum credit- 4 units.

ATH 15Q Intercollegiate Athletics-Tennis: Men
2 units; 10 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: 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; UC, with limits: Any or all ATH & KIN activity courses combined; maximum credit- 4 units.

ATH 15R Intercollegiate Athletics-Tennis: Women
2 units; 10 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: 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; UC, with limits: Any or all ATH & KIN 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 a total of 4 times.
Presents the theory and practice of football-offense, 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; UC, with limits: Any or all ATH 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 a total of 4 times.
Presents the theory and practice of football-defense, including explanation, organization, and development of defensive 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; UC, with limits: Any or all ATH 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 a total of 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; UC, with limits: Any or all ATH 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 a total of 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; UC, with limits: Any or all ATH Theory courses combined; maximum credit- 8 units.

ATH 20 Baseball Theory
0.5 - 2 units; 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken a total of 4 times.
Provides off season skills development and conditioning for men’s intercollegiate baseball.
Transfer Credit: Transfers to CSU; UC pending review.
Bilingual/Bicultural Studies

Program Description:

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 at your intended transfer university-these specific requirements can be found at www.assist.org for 4-year public institutions in California. Please see a counselor for advisement to ensure you are taking the best possible courses given your goal.

Model Program for Bilingual/Bicultural Studies

An Associate Degree requires 60 units appropriate to your educational goal, to include general education and at least 18 units in a major. Courses should be selected to meet the lower-division major preparation requirements at your intended transfer university-these specific requirements can be found at www.assist.org for 4-year public institutions in California. Please see a counselor for advisement to ensure you are taking the best possible courses given your goal.

The department presents the following suggested model program for this major. The courses listed below may or may not be appropriate depending on your specific goal. Please see a counselor for advisement for transfer to any 4-year institution.

A.A. General Education | 30 Units

Core Courses (11-23 Units) | Units

<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</td>
<td>Elementary Spanish I</td>
<td>5</td>
</tr>
<tr>
<td>SPAN 2</td>
<td>Elementary Spanish II</td>
<td>5</td>
</tr>
<tr>
<td>SPAN 3</td>
<td>Intermediate Spanish I</td>
<td>5</td>
</tr>
<tr>
<td>SPAN 4</td>
<td>Intermediate Spanish II</td>
<td>5</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPAN 16</td>
<td>Elementary Spanish for Spanish Speakers</td>
<td>4</td>
</tr>
<tr>
<td>SPAN 17</td>
<td>Elementary Spanish for Spanish Speakers</td>
<td>4</td>
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</table>

plus two courses from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPAN 3</td>
<td>Intermediate Spanish I</td>
</tr>
<tr>
<td>SPAN 4</td>
<td>Intermediate Spanish II</td>
</tr>
<tr>
<td>SPAN 5A</td>
<td>Advanced Grammar and Composition</td>
</tr>
<tr>
<td>and</td>
<td></td>
</tr>
<tr>
<td>SPAN 5B</td>
<td>Advanced Grammar and Composition</td>
</tr>
<tr>
<td>SPAN 6A</td>
<td>Spanish Through Film-Latin America</td>
</tr>
<tr>
<td>and</td>
<td></td>
</tr>
<tr>
<td>SPAN 6B</td>
<td>Spanish Through Film-Spain</td>
</tr>
<tr>
<td>SPAN 10A</td>
<td>Intermediate Spanish Conversation</td>
</tr>
<tr>
<td>SPAN 10B</td>
<td>Advanced Spanish Conversation</td>
</tr>
<tr>
<td>SPAN 25</td>
<td>Advanced Spanish-Literature of Spain</td>
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<tr>
<td>and</td>
<td></td>
</tr>
<tr>
<td>SPAN 26</td>
<td>Advanced Spanish-Literature of Latin America</td>
</tr>
<tr>
<td>SPAN 30B</td>
<td>Mexican Civilization and Culture</td>
</tr>
</tbody>
</table>

Approved Electives (1-6 Units) | Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 39</td>
<td>Chicana/o-Latina/o Literature</td>
</tr>
<tr>
<td>HIST 16C</td>
<td>History of Mexico</td>
</tr>
<tr>
<td>HIST 21A</td>
<td>Chicano History to 1865</td>
</tr>
<tr>
<td>or</td>
<td></td>
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<tr>
<td>HIST 21AH</td>
<td>Honors Chicano History to 1865</td>
</tr>
<tr>
<td>HIST 21B</td>
<td>Chicano History since 1865</td>
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<tr>
<td>or</td>
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<tr>
<td>HIST 21BH</td>
<td>Honors Chicano History since 1865</td>
</tr>
<tr>
<td>SPAN 5A-30</td>
<td>Advanced Grammar, Conversation, Literature, Special Topics in Culture</td>
</tr>
<tr>
<td>WS 5</td>
<td>La Mujer</td>
</tr>
</tbody>
</table>

Other Electives (from courses numbered 1-99) | 0-9 Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>AH 19</td>
<td>Art of the Americas</td>
</tr>
<tr>
<td>AH 52</td>
<td>Latin American Art</td>
</tr>
<tr>
<td>ANTHR 2</td>
<td>Introduction to Anthropology: Cultural</td>
</tr>
<tr>
<td>COMM 12</td>
<td>Intercultural Communication</td>
</tr>
<tr>
<td>GEOG 2</td>
<td>Cultural Geography</td>
</tr>
<tr>
<td>WS 2</td>
<td>Introduction to Women’s Studies: Global Perspectives</td>
</tr>
</tbody>
</table>

Total Units | 60
Bilingual/Bicultural Studies Courses

BBS 32  Issues of Linguistic and Cultural Diversity in Education, History and Politics
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

An introduction to the issues involving linguistic and cultural diversity in this country, including our multi-ethnic heritage, sociopolitical movements, laws concerning ethnicity and language, communication and language acquisition theory, and an in-depth look at bilingual cross-cultural education.

Transfer Credit: Transfers to CSU; UC.

BBS 33AZ 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 1 time.

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; 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.

BIOLOGY

Natural and Applied Sciences Division
Wanda Garner, Division Dean
Division Office, Room 701
Denise Lim, Program Chair (831) 479-6339
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 786-4734
Call (831) 479-6328 for more information
http://www.cabrillo.edu/programs

Biology A.A. Degree

Program Description:

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

These Associate Degrees require 60 units appropriate to your educational goal, to include general education and at least 30 units in a major. Courses should be selected to meet the lower-division major preparation requirements at your intended transfer university—these specific requirements can be found at www.assist.org for 4-year public institutions in California. Please see a counselor for advisement to ensure you are taking the best possible courses given your goal.

The department presents the following suggested model programs for this major. The courses listed below may or may not be appropriate depending on your specific goal. Please see a counselor for advisement for transfer to any 4-year institution.
Biology A.A. Degree

A.A. General Education 30 Units

Biology Core

BIO 1A Cell and Molecular Biology 5
BIO 1B Animal Diversity and Evolutionary Principles 5
BIO 1C Plant Biology and Ecological Principles 5

Related Disciplines (Choose 15 units) Units

CHEM 1A General Chemistry I 5
CHEM 1B General Chemistry II 5
CHEM 12A **Organic Chemistry I 3

and

CHEM 12AL **Organic Chemistry Laboratory I 2

or

CHEM 12B ***Organic Chemistry II 3

and

CHEM 12BL ***Organic Chemistry Laboratory II 2

MATH 5A Analytic Geometry and Calculus I 5
MATH 5B Analytic Geometry and Calculus II 5
MATH 5C Analytic Geometry and Calculus III 5

PHYS 2A **General Physics I 4
PHYS 2B ***General Physics II 4

or

PHYS 4A Physics for Scientists and Engineers I 5
PHYS 4B ** Physics for Scientists and Engineers II 5
PHYS 4C *** Physics for Scientists and Engineers III 5

Total Units 60

*The student should consult the catalog of the intended transfer institution concerning the necessity or appropriateness of these courses. **fall only; ***spring only.

Biology Courses

BIO 1A Cell and Molecular Biology

5 units; 3 hours Lecture, 6 hours Laboratory
Prerequisite: CHEM 1A.

Hybrid Requisite: Completion of or concurrent enrollment in BIO 201.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Introduces principles of molecular biology, examines their application in a survey of important animal clades. 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 techniques used to study evolutionary problems, and provide experience with a diversity of animal groups.

Transfer Credit: Transfers to CSU; UC.

BIO 1B Animal Diversity and Evolutionary Principles

5 units; 3 hours Lecture, 6 hours Laboratory
Prerequisite: MATH 152.

Hybrid Requisite: Completion of or concurrent enrollment in BIO 201.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Introduces principles of evolutionary biology, and examines their application in a survey of important animal clades. 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 techniques used to study evolutionary problems, and provide experience with a diversity of animal groups.

Transfer Credit: Transfers to CSU; UC.

BIO 1C Plant Biology and Ecological Principles

5 units; 3 hours Lecture, 6 hours Laboratory
Prerequisite: MATH 152.

Hybrid Requisite: Completion of or concurrent enrollment in BIO 201.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Presents an in-depth exploration of diversity in photosynthetic protist, plant and fungal form and function, and introduces students to principles of ecology. Themes include how evolutionary history, selection, ecology, and other factors produce different solutions to ‘problems’ that many plants have to face. Lectures provide the informational and thematic framework for the course. Laboratories introduce the diversity of photosynthetic protists, plants, and fungi, plant biology, and techniques used to study ecological problems.

Transfer Credit: Transfers to CSU; UC.
### BIO 4  Human Anatomy

4 units; 3 hours Lecture, 3 hours Laboratory  
Hybrid Requisite: Completion of or concurrent enrollment in BIO 201.  
Recommended Preparation: MA 70 and MA 170B; Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  

Presents the gross structure of the organ systems of the human body through lecture, demonstrations, and dissection. This course is planned for allied health students.  
**Transfer Credit:** Transfers to CSU; UC, with limits: BIO 4 combined with BIO 5 and 13A + 13AL—maximum credit: 2 courses.

### BIO 4A  Human Anatomy Coordinated Studies

1 unit; 3 hours Directed Study  
Corequisite: BIO 4.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  

Provides an enrichment program in anatomy, to be taken concurrent with BIO 4. This course is tailored to individual needs and interests 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; Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  

Presents an exploration of the functions of the various physiological 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 for allied health students.  
**Transfer Credit:** Transfers to CSU; UC, with limits: BIO 5 combined with BIO 4 and 13A + 13AL—maximum credit: 2 courses.

### BIO 6  Microbiology

4 units; 3 hours Lecture, 3 hours Laboratory  
Prerequisite: CHEM 2 taken at college or CHEM 30A or CHEM 32.  
Hybrid Requisite: Completion of or concurrent enrollment in BIO 201.  
Recommended Preparation: BIO 4; Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  

Presents a survey covering cell structure metabolism, molecular genetics and growth, control, and the role of microorganisms in infectious diseases. Emphasis is on bacterial organisms, but includes eukaryotic microbes and viruses as well.  
**Transfer Credit:** Transfers to CSU; UC.

### BIO 10  Plants and Society

3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.  
Repeatability: May be taken 1 time.  

Explores the importance of plants to human history, culture and contemporary societies, and the ecological relationships between plants, humans and the environment. Emphasizes the ways in which plants have influenced human, social, cultural and economic development.  
**Transfer Credit:** Transfers to CSU; UC.

### BIO 11A  General Biology

4 units; 3 hours Lecture, 3 hours Laboratory  
Hybrid Requisite: Completion of or concurrent enrollment in BIO 201.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  

Presents an introduction to the world of living things. Topics include molecular and cell biology, genetics, biotechnology, human biology, diversity of life, evolution, and ecology. Emphasis is 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; 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.  
Repeatability: May be taken 1 time.  

Explores ocean processes, habitats and organisms, including those 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; UC.

### BIO 11C  Ecology

5 units; 3 hours Lecture, 6 hours Laboratory  
Hybrid Requisite: Completion of or concurrent enrollment in BIO 201.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.  
Repeatability: May be taken 1 time.  

Covers factors influencing distribution, abundance, and evolution of organisms. Includes simulations, experiments, individual projects and field trips. For Biology and Environmental Studies majors.  
**Transfer Credit:** Transfers to CSU; UC.

### BIO 11DV  Scientific Diving

4 units; 3 hours Lecture, 3 hours Laboratory  
Prerequisite: Requires advanced diving certification or equivalent experience prior to enrollment.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.  
Repeatability: May be taken 1 time.  

Introduces diving techniques for working and conducting research underwater, safety guidelines, research and dive planning, physics and physiology of diving, and the marine environment. Upon successful completion, students can obtain NAUI Master Diver Certification and/or approved training by American Academy of Underwater Sciences in Scientific Diving (OSHA approved).  
**Transfer Credit:** Transfers to CSU; UC, pending review.
BIO 13A  Biology of People-Anatomy and Physiology  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Presents a survey of the integration of structure and function of the most wonderful of machines, the human body. The healthy state is emphasized but selected disease processes are covered. Intended for non-science majors or selected pre-health professionals. 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; 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  
Hybrid Requisite: Completion of or concurrent enrollment in BIO 13A and BIO 201.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Presents a human anatomy and physiology laboratory course designed to accompany BIO 13A. Course involves hands-on experiences to assist in understanding the various structures and functions of the body. Includes use of models, experimentation, demonstrations, and limited dissection.  
Transfer Credit: Transfers to CSU; 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.  
Repeatability: May be taken 1 time.  
Introduces 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; UC.

BIO 15AZ  Natural History of Western America  
2 - 7 units; 1 hour Lecture, 3 hours Laboratory  
Recommended Preparation: Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.  
Repeatability: May be taken 1 time.  
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 17AZ  Special Topics in Biology  
2 - 3 units; 2 hours Lecture or 6 hours Laboratory  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Presents topics in specialized fields of biology with an emphasis on recent advances and the use of a multidisciplinary approach. Some fields include biotechnology, human biology, ecology, evolution, and organizational biology. Course content may vary with each offering.  
Transfer Credit: Transfers to CSU; 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 21  Field Biology  
4 units; 3 hours Lecture, 3 hours Laboratory  
Recommended Preparation: Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.  
Repeatability: May be taken 1 time.  
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; UC.

BIO 31  Animal Behavior  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.  
Repeatability: May be taken 1 time.  
Explores animal behavior including the hardships of growing up, capturing food, escaping, migrating, navigating, communicating, making homes, competing for mates, courting, sex, and taking care of offspring, and complex social behaviors.  
Transfer Credit: Transfers to CSU; UC, with conditions: No credit if taken after BIO 1B.

BIO 201  Introduction to the Microscope  
0.25 - 0.5 hours; 0.25 hour Lecture  
Repeatability: May be taken 1 time.  
Introduces proper use and handling of light compound and dissection microscopes. Other topics include the history and principles of microscopy and preparation of biological specimens for microscopy.
BUSINESS
Business, English, and Language Arts
James Weckler, Division Dean
Division Office, Room 301
Mo Hassan, Program Chair, (831) 477-3201
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 786-4734
Call (831) 479-6400 for more information
http://www.cabrillo.edu/programs

Associate Degree for Transfer
A Degree with a Guarantee.

Business Administration
Business A.S.-T Transfer Degree
Program Description:
The Business program is designed to provide students with the 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 several options. The first option listed below is the Associate in Science in Business Administration for Transfer (A.S.-T), which is intended for students who plan to complete a bachelor’s degree in a similar major at a CSU campus. Students completing these degrees are guaranteed admission to the CSU system, but not to a particular campus or major. This degree may not be the best option for students intending to transfer to a particular CSU campus or to a university or college that is not part of the CSU system.

See Associate Degree for Transfer information in the Cabrillo College Catalog.

Other options include an Associate in Arts Degree also designed for transfer to a four-year college or university, and a vocational Associate in Science Degree and Certificate of Proficiency designed for direct employment.

The following is required for all A.A.-T or A.S.-T degrees:
- Completion of 60 CSU-transferable semester units.
- Minimum grade-point average (GPA) of at least 2.0 in all CSU-transferable coursework. While a minimum of 2.0 is required for admission, some majors may require a higher GPA.
- Completion of a minimum of 18 semester units in the major with a letter grade of “C” or better. A “P” grade is not acceptable for courses in the major.
- Certified completion of the California State University General Education-Breadth pattern (CSU GE Breadth) or the Intersegmental General Education Transfer Curriculum (IGETC) pattern.

General Business
General Business A.A. Degree
Program Description:
The Business program is designed to provide students with the 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 Achievement 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
An Associate Degree requires 60 units appropriate to your educational goal, to include general education and at least 18 units in a major. Courses should be selected to meet the lower-division major preparation requirements at your intended transfer university-these specific requirements can be found at www.assist.org for 4-year public institutions in California. Please see a counselor for advisement to ensure you are taking the best possible courses given your goal.

The department presents the following suggested model program for this major. The courses listed below may or may not be appropriate depending on your specific goal. Please see a counselor for advisement for transfer to any 4-year institution.

A.A. General Education 30 Units

Core Courses (Choose 20 units) Units
ACCT 1A Financial Accounting 4
ACCT 1B Managerial Accounting 4
BUS 5 Business Information Systems 4
BUS 9 Business Statistics 3

List A - Select one course from: (3-5 units)
MATH 12 Elementary Statistics 5
MATH 12H Honors Elementary Statistics 5
MATH 13 Finite Mathematics 3
MATH 18 Business Calculus 3

List B - Select two courses from: (6-9 units)
BUS 5 Business Information Systems 4
BUS 20 Introduction to Business 3
BUS 52 Business Communications 3

Total Units 64 - 71
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<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 60</td>
<td>International Business</td>
<td>3</td>
</tr>
<tr>
<td>ECON 1A</td>
<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>MATH 13</td>
<td>Finite Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>MATH 18</td>
<td>Business Calculus</td>
<td>3</td>
</tr>
</tbody>
</table>

Required of most business majors depending on university of transfer. See business adviser for specifics.

**Electives:**

(Any Course numbered 1-99) ........................................... 10

**Total Units** .......................................................... 60

### General Business (Occupational) A.S. Degree

**A.S. General Education** ............................................. 21 Units

#### General Business Occupational Core Courses (25 Units)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
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<tbody>
<tr>
<td>ACCT 1A</td>
<td>Financial Accounting</td>
<td>4</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>
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<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 60</td>
<td>International Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 82</td>
<td>Marketing Principles</td>
<td>3</td>
</tr>
<tr>
<td>FIN 4</td>
<td>Money Management</td>
<td>4</td>
</tr>
</tbody>
</table>

#### Approved Electives (9 Units)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 1B</td>
<td>Managerial Accounting</td>
<td>4</td>
</tr>
<tr>
<td>BUS 9</td>
<td>Business Statistics</td>
<td>3</td>
</tr>
<tr>
<td>BUS 21</td>
<td>Internet Resources for Business</td>
<td>1.5</td>
</tr>
<tr>
<td>BUS 50</td>
<td>Advertising for Small Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 52</td>
<td>Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>BUS 67</td>
<td>Human Relations and Resources</td>
<td>3</td>
</tr>
<tr>
<td>BUS 68</td>
<td>International Business Law</td>
<td>4</td>
</tr>
<tr>
<td>BUS 71</td>
<td>International Marketing</td>
<td>3</td>
</tr>
<tr>
<td>BUS 75</td>
<td>Business, Society and Government</td>
<td>3</td>
</tr>
<tr>
<td>BUS 88</td>
<td>Starting and Operating a New Small Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 89</td>
<td>Starting &amp; Operating an eCommerce Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 120</td>
<td>Introduction to Project Management</td>
<td>3</td>
</tr>
<tr>
<td>BUS 199C</td>
<td>Career Work Experience Education</td>
<td>1-4</td>
</tr>
</tbody>
</table>

**Electives:**

(Any Course numbered 1-199) ........................................... 5

**Total Units** .......................................................... 60

### General Business Certificate of Achievement

#### General Business Occupational

**Core Courses (25 Units)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 1A</td>
<td>Financial Accounting</td>
<td>4</td>
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<td>Business Law</td>
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<td>BUS 82</td>
<td>Marketing Principles</td>
<td>3</td>
</tr>
<tr>
<td>FIN 4</td>
<td>Money Management</td>
<td>4</td>
</tr>
</tbody>
</table>

**Required Courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CABT 157</td>
<td>Business and Technical Writing</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>ENGL 100 Elements of Writing</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>ENGL 1A/1AH/1AMC/1AMCH</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Units** .......................................................... 28

### Entrepreneurships/Small Business Skills Certificate

#### Program Description:

Students pursuing the Skills Certificate in Entrepreneurships/Small Business will be learning the fundamentals of small business planning and management. The certificate is designed to prepare students for the challenges they may encounter in establishing and operating a small business.

#### Program Learning Outcomes:

1. Critically evaluate business plans and describe the processes required to establish, operate and measure the viability of a small business.
2. Assess and analyze costs and revenues of a small business. Comprehend the dynamics and operations of an e-commerce business.

**Certificate Requirements:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 88</td>
<td>Starting and Operating a New Small Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 89</td>
<td>Starting &amp; Operating an eCommerce Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 50</td>
<td>Advertising for Small Business</td>
<td>3</td>
</tr>
</tbody>
</table>

**Take two of the following**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</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>or</td>
<td>BUS 18 Business Law</td>
<td>4</td>
</tr>
<tr>
<td>or</td>
<td>BUS 52 Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>BUS 60 International Business</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>BUS 67 Human Relations and Resources</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>BUS 82 Marketing Principles</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>FIN 4 Money Management</td>
<td>4</td>
</tr>
</tbody>
</table>

**Total Units** .......................................................... 12-17
Business Courses

BUS 5  Business Information Systems
4 units; 3 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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 data base systems (Access) are introduced with appropriate business applications. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC. C-ID BUS 110

BUS 9  Business Statistics
3 units; 3 hours Lecture, 1 hour Laboratory
Prerequisite: MATH 152 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Teaches the 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. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC. C-ID BUS 140

BUS 18  Business Law
4 units; 3 hours Lecture, 2 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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; UC. C-ID BUS 140

BUS 20  Introduction to Business
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC. C-ID BUS 110

BUS 50  Advertising for Small Business
3 units; 3 hours Lecture, 2 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Teaches advertising and promotion for small businesses, emphasizing local and regional media. Covers media planning, budgeting, and purchasing, media creation, design and layout for television, radio, newspaper, magazine, brochures, fliers, outdoor, direct mail, web, press releases and more as marketing tools. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

BUS 52  Business Communications
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Introduces business communication examining form, structures, and style specific to the business environment, focusing on written communication, develops the skills needed in today’s global business environment.
Transfer Credit: Transfers to CSU.

BUS 60  International Business
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Provides general knowledge of international markets and business. Covers 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 offered 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.
Repeatability: May be taken 1 time.
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. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

BUS 68  International Business Law
4 units; 4 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Introduces international business and environmental laws and their utilization in creating and executing effective corporate strategies and international business transactions. 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.
Repeatability: May be taken 1 time.
Focuses on the impact of cultural and economic elements on global trade and opportunities; designed to promote an understanding of the impact a country’s culture and environment have on the marketing plan and marketing strategies. May be offered in a Distance-Learning Format.
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.
Repeatability: May be taken 1 time.
Teaches the relationship dynamics between 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. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

BUS 82  Marketing Principles
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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. Provides general and practical knowledge on marketing research, target market analysis, consumer behavior and promotional campaigns. 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, 2 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Teaches eCommerce for new or existing businesses planning to create a professional business presence online. Covers eCommerce, designing a website, web assets, technology, web architecture, web sales, security, online advertising, maintaining the website, legalities and using professional software. 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.
Repeatability: May be taken 1 time.
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 offered in a Distance-Learning Format.

BUS 163  Global Business Management
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Introduces basic management principles, concepts and practices. Explains management functions and leadership styles. Current issues and trends integrated throughout the 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
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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
Albi Romero, Program Chair, (831) 479-6203
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 786-4734
Call (831) 479-6328 for more information
http://www.cabrillo.edu/programs

Program Description:
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

These Associate Degrees require 60 units appropriate to your educational goal, to include general education and at least 30 units in a major. Courses should be selected to meet the lower-division major preparation requirements at your intended transfer university; these specific requirements can be found at www.assist.org for 4-year public institutions in California. Please see a counselor for advisement to ensure you are taking the best possible courses given your goal.

The department presents the following suggested model programs for this major. The courses listed below may or may not be appropriate depending on your specific goal. Please see a counselor for advisement for transfer to any 4-year institution.

### Chemistry A.A. Degree

<table>
<thead>
<tr>
<th>A.A. General Education</th>
<th>30 Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Courses (20-24 Units)</td>
<td>Units</td>
</tr>
<tr>
<td>CHEM 1A</td>
<td>General Chemistry I</td>
</tr>
<tr>
<td>CHEM 1B</td>
<td>General Chemistry II</td>
</tr>
<tr>
<td>CHEM 5</td>
<td>+ Quantitative Analysis</td>
</tr>
<tr>
<td>CHEM 12A</td>
<td>++ Organic Chemistry I</td>
</tr>
<tr>
<td>CHEM 12AL</td>
<td>++ Organic Chemistry Laboratory I</td>
</tr>
<tr>
<td>CHEM 12B</td>
<td>+++ Organic Chemistry II</td>
</tr>
<tr>
<td>CHEM 12BL</td>
<td>+++ Organic Chemistry Laboratory II</td>
</tr>
<tr>
<td>Foreign Language</td>
<td>*</td>
</tr>
<tr>
<td>MATH 5A</td>
<td>Analytic Geometry and Calculus I</td>
</tr>
<tr>
<td>MATH 5B</td>
<td>Analytic Geometry and Calculus II</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>PHYS 4A</td>
<td>Physics for Scientists and Engineers I</td>
</tr>
<tr>
<td>PHYS 4B</td>
<td>++ Physics for Scientists and Engineers II</td>
</tr>
<tr>
<td>PHYS 4C</td>
<td>+++ Physics for Scientists and Engineers III</td>
</tr>
<tr>
<td>PHYS 4D</td>
<td>+++ Modern Physics</td>
</tr>
</tbody>
</table>

**Electives:**

(Any Course Number 1-99) | 6-10 |

**Total Units** | 60 |

*The student should consult the Catalog of the intended transfer institution concerning the necessity or appropriateness of these courses.

### Chemistry A.S. Degree

<table>
<thead>
<tr>
<th>A.S. General Education</th>
<th>21 Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Courses (39 Units)</td>
<td>Units</td>
</tr>
<tr>
<td>CHEM 1A</td>
<td>General Chemistry I</td>
</tr>
<tr>
<td>CHEM 1B</td>
<td>General Chemistry II</td>
</tr>
<tr>
<td>CHEM 5</td>
<td>+ Quantitative Analysis</td>
</tr>
<tr>
<td>CHEM 12A</td>
<td>++ *Organic Chemistry I</td>
</tr>
<tr>
<td>CHEM 12AL</td>
<td>++ Organic Chemistry Laboratory I</td>
</tr>
<tr>
<td>CHEM 12B</td>
<td>+++ *Organic Chemistry II</td>
</tr>
<tr>
<td>CHEM 12BL</td>
<td>+++ Organic Chemistry Laboratory II</td>
</tr>
<tr>
<td>Foreign Language</td>
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<td>MATH 5A</td>
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<td>Analytic Geometry and Calculus II</td>
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</tr>
<tr>
<td>PHYS 4C</td>
<td>+++ Physics for Scientists and Engineers III</td>
</tr>
<tr>
<td>PHYS 4D</td>
<td>+++ Modern Physics</td>
</tr>
</tbody>
</table>

**Total Units** | 60 |

*The student should consult the Catalog of the intended transfer institution concerning the necessity or appropriateness of these courses.*
Chemistry Courses

CHEM 1A  General Chemistry I
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.
Repeatability: May be taken 1 time.
Covers 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; UC. C-ID CHEM 110; CHEM 1A + CHEM 1B = C-ID CHEM 120S

CHEM 1B  General Chemistry II
5 units; 3 hours Lecture, 6 hours Laboratory
Prerequisite: CHEM 1A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Covers general chemical principles including organic chemistry, chemical kinetics, equilibrium, acid/base chemistry, thermochemistry, thermodynamics, electrochemistry, structure, properties of transition metals and nuclear chemistry.
Transfer Credit: Transfers to CSU; UC. CHEM 1A + CHEM 1B = C-ID CHEM 120S

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.
Repeatability: May be taken 1 time.
Covers fundamental principles of inorganic chemistry. 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; UC. CHEM 1A + CHEM 1B = C-ID CHEM 120S

CHEM 5  Quantitative Analysis
4 units; 2 hours Lecture, 6 hours Laboratory
Prerequisite: CHEM 1B.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Presents 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. Spring semester odd years only.
Transfer Credit: Transfers to CSU; UC.

CHEM 10  Concepts of Chemistry
4 units; 3 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.
Presents an 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, the modern chemical industry and its impact on our environment.
Transfer Credit: Transfers to CSU; UC, with conditions: No credit for CHEM 10 if taken after CHEM 1A.

CHEM 12A  Organic Chemistry I
3 units; 3 hours Lecture
Prerequisite: CHEM 1B.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Presents 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. Covers stereochemistry, mechanisms, reactions and spectroscopic studies of aliphatic compounds. Students enrolled in the Honors Transfer Program may count this course towards the “Honors Scholar” designation. Fall semester only.
Transfer Credit: Transfers to CSU; UC. CHEM 12A + CHEM 12AL = C-ID CHEM 150; CHEM 12A + CHEM 12AL + CHEM 12B + CHEM 12BL = C-ID CHEM 160S

CHEM 12AL  Organic Chemistry Laboratory I
2 units; 6 hours Laboratory
Prerequisite: CHEM 1B.
Hybrid Requisite: Completion of or concurrent enrollment in CHEM 12A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Presents an introduction to microscale laboratory and instrumental techniques covering isolation, synthesis and identification of many classes of organic compounds. Students enrolled in the Honors Transfer Program may count this course towards the “Honors Scholar” designation. Fall semester only.
Transfer Credit: Transfers to CSU; UC. CCHEM 12A + CHEM 12AL = C-ID CHEM 150; CHEM 12A + CHEM 12AL + CHEM 12B + CHEM 12BL = C-ID CHEM 160S

CHEM 12B  Organic Chemistry II
3 units; 3 hours Lecture
Prerequisite: CHEM 12A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Covers mechanisms, synthesis and spectroscopy of aliphatic and aromatic alcohols, amines, carbonyl and carboxyl compounds, carbohydrates and proteins. Students enrolled in the Honors Transfer Program may count this course towards the “Honors Scholar” designation. Spring semester only.
Transfer Credit: Transfers to CSU; UC. CHEM 12A + CHEM 12AL + CHEM 12B + CHEM 12BL = C-ID CHEM 160S
CHEM 12BL  Organic Chemistry Laboratory II  
2 units; 6 hours Laboratory  
Prerequisite: CHEM 12AL.  
Hybrid Requisite: Completion of or concurrent enrollment in CHEM 12B.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  

Presents multi-step synthesis and identification of unknown mixtures including chemical, physical and spectroscopic studies of aliphatic and aromatic alcohols, aldehydes, ketones, acids and other classes of organic compounds. Includes GC and IR. Students enrolled in the Honors Transfer Program may count this course towards the “Honors Scholar” designation. Spring semester only.  
Transfer Credit: Transfers to CSU; UC. CHEM 12A + CHEM 12AL + CHEM 12B + CHEM 12BL = C-ID CHEM 160S

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.  
Repeatability: May be taken 1 time.  

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.

CHEM 30B  Introductory Organic Chemistry and Biochemistry for Health Occupations  
4 units; 3 hours Lecture, 3 hours Laboratory  
Prerequisite: CHEM 30A or CHEM 2 or high school chemistry.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  

Presents a 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.

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.  
Repeatability: May be taken 1 time.  

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  
Program Suspended

COMMUNICATION STUDIES  
Human Arts and Social Sciences Division  
Isabel O’Connor, Division Dean  
Division Office, Room 420  
Program Chair, Dan Rothwell, (831) 479-6511  
Aptos Counselor: (831) 479-6274 for appointment  
Watsonville Counselor: (831) 786-4734  
Call (831) 479-6297 for more information  
http://www.cabrillo.edu/programs

Communication Studies  
Communication Studies A.A.-T Transfer Degree  
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 Baccalaureate and/or graduate degree in Communication Studies can lead to careers in public relations, teaching, consulting, broadcasting, law, ministry, public administration, politics, or any field in which communication skills are highly valued. The first option listed below is the Associate in Arts in Communication Studies for Transfer (A.A.-T), which is intended for students who plan to transfer and complete a bachelor’s degree in Communication Studies or a similar major at a CSU campus. Students completing the Associate in Arts in Communication Studies for Transfer are guaranteed admission to the CSU system, but not to a par-
Completion of CSU or IGETC

General Education Requirements

<table>
<thead>
<tr>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>37 - 39</td>
</tr>
</tbody>
</table>

Core Course (3 units)
- **COMM 1** Public Speaking 
- **COMM 1H** Honors Public Speaking 

List A - Select 2 courses from: (6 units)
- **COMM 2** Group Discussion 
- **COMM 4** Argumentation and Persuasion 
- **COMM 7** Interpersonal Communication 

List B - Select 2 courses from: (6 units)
- **AP 9A** Beginning Photography 
- **COMM 10** Communication Process 
- **COMM 12** Intercultural Communication 
- **DM 1** Introduction to Digital Media 
- **HIST 4A** Survey of Western Civilization to 1648 
- **HIST 4AH** Honors Survey of Western Civilization to 1648 
- **HIST 4B** Survey of Western Civilization to Late 20th Century 
- **HIST 4BH** Honors Survey of Western Civilization to Late 20th Century 
- **JOURN 20A** Introduction to Photojournalism 
- **JOURN 21** Mass Communications 
- **JOURN 53** Newspaper Production 
- **MATH 12** Elementary Statistics 
- **MATH 12H** Honors Elementary Statistics 
- **PSYCH 2A** Statistics for Behavioral Sciences 
- **TA 18** Narrative Performance 

List C - Select 1 course from: (3 units)
- **ANTHR 2** Introduction to Anthropology: Cultural 
- **ANTHR 2H** Introduction to Anthropology: Cultural (Honors) 
- **COMM 6** Listening 
- **COMM 8** Communication Activities 
- **COMM 14** Health Communication 
- **DM 1** Introduction to Digital Media 
- **ENGL 1B** Composition and Literature 

Electives:
- (Any Course Numbered 1-99) 

<table>
<thead>
<tr>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 - 5</td>
</tr>
</tbody>
</table>

**Total Units 60**
### A.A. General Education 30 Units

#### Core Courses (13 Units) Units
- COMM 1 Public Speaking .......................... 3
- or COMM 1H Honors Public Speaking .......... 3
- COMM 2 Group Discussion .......................... 3
- COMM 6 Listening .................................. 1
- COMM 10 Communication Process .................. 3
- COMM 12 Intercultural Communication ............ 3

#### Approved Electives (7 Units) Units
- COMM 4 Argumentation and Persuasion ............ 3
- COMM 7 Interpersonal Communication ............. 3
- COMM 8 Communication Activities .................. 3
- COMM 14 Health Communication ................... 3
- CS 1 Introduction to Computers and Computer Technology .................. 3
- CS 1L Technology Tools .......................... 2
- MATH 12 Elementary Statistics .................... 5
- or MATH 12H Honors Elementary Statistics ........ 5
- PSYCH 1 General Psychology ..................... 3
- or PSYCH 1H Honors General Psychology .......... 3
- SOC 1 Introduction to Sociology: Understanding Society ............ 3
- or SOC 1H Honors Introduction to Sociology: Understanding Society .................. 3

#### Electives:
(Any Course Number 1-99) .......................... 10

Total Units ........................................ 60

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### Communication Studies Courses

#### COMM 1 Public Speaking
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Hybrid Requisite: Completion of or concurrent enrollment in COMM 6.
Repeatability: May be taken 1 time.

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; UC.*

#### COMM 1H Honors Public Speaking
3 units; 3 hours Lecture
Prerequisite: Honors Standing.
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH; Eligibility for ENGL 100 and READ 100.
Hybrid Requisite: COMM 6 Completion of or concurrent enrollment in.
Repeatability: May be taken 1 time.

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; UC. C-ID COMM 110*

#### COMM 2 Group Discussion
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Hybrid Requisite: Completion of or concurrent enrollment in COMM 6.
Repeatability: May be taken 1 time.

Emphasizes 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; UC, with limits: COMM 2 & 10 combined-maximum credit-1 course. C-ID COMM 140*

#### COMM 4 Argumentation and Persuasion
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Introduces basic elements of argumentation. Some emphasis placed on debating controversial issues and learning fundamental debate techniques.

*Transfer Credit: Transfers to CSU; UC.*

#### COMM 6 Listening
1 unit; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

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-thinking 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.
Repeatability: May be taken 1 time.

Introduces 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; UC. C-ID COMM 130*

#### COMM 8 Communication Activities
3 units; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Provides experience in various communication activities including observation of and participation in community and/or college groups. May be offered in a Distance-Learning Format.

*Transfer Credit: Transfers to CSU.*
COMM 10  Communication Process
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Provides experience in the three levels of communication: one-to-one, one-to-few, and one-to-many. Explores assumptions, principles, processes, variables, methods, and specialization of human communication.
Transfer Credit: Transfers to CSU; 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 and READ 100.
Repeatability: May be taken 1 time.
Provides an understanding of the dynamics of intercultural communication with application to American culture, subcultures and different cultures of the world. Emphasizes culture shock, self awareness, perception, values, world views, verbal and nonverbal communication competency and ways to become a more cross-culturally sensitive and diverse communicator. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC. C-ID COMM 150

COMM 14  Health Communication
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Introduces the theory and practice of communication vital to multicultural health care settings. Covers patient-caregiver communication, the influence of health care organizations on health communication, and specific health communication needs across the life span. Students will gain practical experience in critical thinking, decision-making, and problem-solving within interpersonal, small group and public speaking/education contexts.
Transfer Credit: Transfers to CSU.

COMPUTER APPLICATIONS/BUSINESS TECHNOLOGY
Business, English, and Language Arts
James Weckler, Division Dean
Division Office, Room 301
Calais Ingel, Program Chair, (831) 477-3203
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 786-4734
Call (831) 479-6400 for more information
http://www.cabrillo.edu/programs

Program Description:
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 A.S Degree are stepping-stones to a variety of professional careers in business and technology.

Skills Certificate:
• Professional Computer Applications
• Computer Skills for the Office

Certificates of Achievement:
• 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.
Computer Applications/Business Technology

A.S. Degree

Program Learning Outcomes:
1. Productively work as a team member with people of diverse experiences and backgrounds in a workplace environment. (GE Core Competency IIB. Global Awareness, Social diversity and civics)
2. Competently communicate in support of a business office, including production and design of complex electronic and paper-based correspondence and documents. (GE Core Competency I. Communication, Competency II. Critical Thinking and Information Competency)
3. Use the Internet, a wide variety of current and emerging computer applications and standard business procedures to compute, analyze business performance, and solve problems. (GE Core Competency II. Critical Thinking and Information Competency)
4. Actively assist in implementing general office procedures, including records management. (GE Core Competency II. Critical Thinking and Information Competency)
5. Demonstrate high and efficient qualities of self-management and self-awareness in terms of workplace responsibility and productivity. (GE Core Competency IV. Personal Responsibility and Professional Development)
6. Demonstrate the ability to competently use a wide variety of office equipment, including computers, peripherals, and non-computerized office machines. (GE Core Competency II. Critical Thinking and Information Competency)

A.S. General Education 21

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
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<tbody>
<tr>
<td>CABT 31</td>
<td>Microsoft Word</td>
</tr>
<tr>
<td>CABT 38</td>
<td>Introduction to Microsoft Office</td>
</tr>
<tr>
<td>CABT 100</td>
<td>Business Technology &amp; Procedures</td>
</tr>
<tr>
<td>CABT 101</td>
<td>* Computer Proficiency</td>
</tr>
<tr>
<td>CABT 110A</td>
<td>** Computer Keyboarding-Alphabet Keys</td>
</tr>
<tr>
<td>CABT 110B</td>
<td>** Computer Keyboarding-Numbers/Symbols</td>
</tr>
<tr>
<td>CABT 111</td>
<td>Using Speech Recognition Software</td>
</tr>
<tr>
<td>CABT 156</td>
<td>Writing for the Workplace</td>
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Computer/Business Applications Core Courses (9-10 units)

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<tr>
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</tr>
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<tbody>
<tr>
<td>CABT 41</td>
<td>Excel</td>
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<tr>
<td>CABT 157</td>
<td>Business and Technical Writing</td>
</tr>
<tr>
<td>CABT 199C</td>
<td>Career Work Experience Education</td>
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<tr>
<td>DM 1</td>
<td>Introduction to Digital Media</td>
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Approved Electives (8 Units)

<table>
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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>ACCT 15A</td>
<td>Introduction to Accounting: Bookkeeping Concepts</td>
</tr>
<tr>
<td>ACCT 163</td>
<td>Using Quickbooks</td>
</tr>
<tr>
<td>BUS 5</td>
<td>Business Information Systems</td>
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<tr>
<td>BUS 18</td>
<td>Business Law</td>
</tr>
<tr>
<td>BUS 20</td>
<td>Introduction to Business</td>
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<tr>
<td>BUS 89</td>
<td>Starting &amp; Operating an eCommerce Business</td>
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<tr>
<td>CABT 101</td>
<td>Computer Proficiency</td>
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<td>CABT 102</td>
<td>10-Key Calculator</td>
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<tr>
<td>CABT 103A</td>
<td>Data Entry on Computer</td>
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<tr>
<td>CABT 103B</td>
<td>Advanced Data Entry</td>
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<tr>
<td>CABT 106</td>
<td>** Introduction to Computers at Cabrillo</td>
</tr>
<tr>
<td>CABT 107</td>
<td>Applied Computer Skills</td>
</tr>
<tr>
<td>CABT 10C</td>
<td>Computer Keyboarding-Speed Development</td>
</tr>
<tr>
<td>CABT 111</td>
<td>** Using Speech Recognition Software</td>
</tr>
<tr>
<td>CABT 118</td>
<td>** Using Microsoft Windows</td>
</tr>
<tr>
<td>CABT 143</td>
<td>Beginning MS Excel</td>
</tr>
<tr>
<td>CABT 160</td>
<td>** Introduction to the Internet and the World Wide Web</td>
</tr>
<tr>
<td>CABT 161</td>
<td>Creating a Simple Web Site</td>
</tr>
<tr>
<td>CABT 199C</td>
<td>*** Career Work Experience Education</td>
</tr>
<tr>
<td>COMM 2</td>
<td>Group Discussion</td>
</tr>
<tr>
<td>COMM 6</td>
<td>Listening</td>
</tr>
<tr>
<td>CS 1</td>
<td>Introduction to Computers and Computer Technology</td>
</tr>
<tr>
<td>DM 1</td>
<td>** Introduction to Digital Media</td>
</tr>
<tr>
<td>ETECH 24</td>
<td>Information Research</td>
</tr>
<tr>
<td>LIBR 100</td>
<td>Advanced Internet Searching</td>
</tr>
<tr>
<td>MA 172</td>
<td>Medical Office Procedures</td>
</tr>
</tbody>
</table>

Electives (from any course numbered 1-199) | 4-6 |

Total Units 60

*CAPT 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 CAbTinstructor for more information.

***May be used as Elective credit if not used for Core Course credit.

Computer/Business Applications Certificate of Achievement

Program Learning Outcomes:

1. Productively work as a team member with people of diverse experiences and backgrounds in a workplace environment.(GE Core Competency IIB. Global Awareness, Social diversity and civics)
2. Competently communicate in support of a business office, including production and design of complex electronic and paper-based correspondence and documents. (GE Core Competency I. Communication, Competency II. Critical Thinking and Information Competency)
3. Use the Internet, a wide variety of current and emerging computer applications and standard business procedures to compute, analyze business performance, and solve problems. (GE Core Competency II. Critical Thinking and Information Competency)
4. Actively assist in implementing general office procedures, including records management. (GE Core Competency II. Critical Thinking and Information Competency)
5. Demonstrate high and efficient qualities of self-management and self-awareness in terms of workplace responsibility and productivity. (GE Core Competency IV. Personal Responsibility and Professional Development)
6. Demonstrate the ability to competently use a wide variety of office equipment, including computers, peripherals, and non-computerized office machines. (GE Core Competency II. Critical Thinking and Information Competency)
### Program Learning Outcomes

**Administrative Support Certificate of Achievement**

1. Productively work as a team member with people of diverse experiences and backgrounds in a workplace environment.
2. Competently communicate in support of a business office, including production and design of electronic and paper-based correspondence and documents.
3. Use the Internet, a variety of current and emerging computer applications and standard business procedures to compute, analyze business performance, and solve problems.
4. Actively assist in implementing general office procedures, including records management.
5. Demonstrate self-management and self-awareness in terms of workplace responsibility and productivity.
6. Demonstrate the ability to competently use office equipment, including computers and peripherals.

### CABT Core Courses (16-17 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CABT 31</td>
<td>Microsoft Word</td>
<td>3</td>
</tr>
<tr>
<td>CABT 38</td>
<td>Introduction to Microsoft Office</td>
<td>3-4</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>CABT 110A</td>
<td>** Computer Keyboarding-Alphabet Keys</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td>and</td>
<td></td>
</tr>
<tr>
<td>CABT 110B</td>
<td>** Computer Keyboarding-Numbers/Symbols</td>
<td>0.5</td>
</tr>
<tr>
<td>or</td>
<td>CABT 111</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Using Speech Recognition Software</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td>CABT 156</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Writing for the Workplace</td>
<td></td>
</tr>
</tbody>
</table>

### Computer/Business Applications Core Courses (9-10 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CABT 41</td>
<td>Excel</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>
<tr>
<td>or</td>
<td>DM 1</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Introduction to Digital Media</td>
<td></td>
</tr>
</tbody>
</table>

**Total Units: 28-30**

*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 (5.5-6 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CABT 156</td>
<td>Writing for the Workplace</td>
<td>3</td>
</tr>
</tbody>
</table>

### Administrative Support Core Courses (5.5-6 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CABT 31</td>
<td>Microsoft Word</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>1.5</td>
</tr>
<tr>
<td>or</td>
<td>CABT 199C</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Career Work Experience Education</td>
<td></td>
</tr>
</tbody>
</table>

**Other Required Courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ENGL 100</td>
<td>Elements of Writing</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>ENGL 1A/1AH/1AMC/1AMCH</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>CABT 157</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Business and Technical Writing</td>
<td></td>
</tr>
</tbody>
</table>

**Total Units: 24.5-26**

*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 Applications/Business Technology

### Program Learning Outcomes

1. Productively work as a team member with people of diverse experiences and backgrounds in a workplace environment.
2. Demonstrate entry-level professional computer skills, including the use of word processing, spreadsheet, Internet research, e-mail, simple web page development, and keyboarding.

### Required Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CABT 101</td>
<td>Computer Proficiency</td>
<td>3</td>
</tr>
<tr>
<td>CABT 110A</td>
<td>* Computer Keyboarding-Alphabet Keys</td>
<td>0.5</td>
</tr>
<tr>
<td>and</td>
<td>CABT 110B</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td>** Computer Keyboarding-Numbers/Symbols</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td>CABT 111</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Using Speech Recognition Software</td>
<td></td>
</tr>
</tbody>
</table>

**Total Units: 4**

*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.*

### Professional Computer Applications Skills Certificate

### Program Learning Outcomes

1. Productively work as a team member with people of diverse experiences and backgrounds in a workplace environment.
2. Competently design and produce complex electronic and paper-based correspondence and documents.
3. Use a variety of current and emerging computer applications to compute, analyze business performance, and solve problems.

### Required Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CABT 38</td>
<td>Introduction to Microsoft Office</td>
<td>3-4</td>
</tr>
<tr>
<td>CABT 31</td>
<td>Microsoft Word</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>CABT 131</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Microsoft Word</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td>DM 1</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Introduction to Digital Media</td>
<td></td>
</tr>
</tbody>
</table>

**Total Units: 13-14**
Computer Applications/Business Technology Courses

CABT 31  Microsoft Word
3 units; 3 hours Lecture, 2 hours Laboratory
Prerequisite: CABT 110A or equivalent keyboarding experience CABT 106 or equivalent computer experience.
Recommended Preparation: CABT 101 or equivalent computer experience.
CABT 110A or equivalent experience; Eligibility for ENGL 100 and READ 100.
Repeatable: May be taken 1 time.
Covers the basic, intermediate, and expert features of Microsoft Word necessary to produce complex, professional-quality business documents. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.
*Transfer Credit:** Transfers to CSU.

CABT 38  Introduction to Microsoft Office
3 - 4 units; 3 hours Lecture, 2 hours Laboratory
Prerequisite: CABT 110A CABT 106 or equivalent skills.
Recommended Preparation: CABT 118 or CABT 101 or equivalent skills; Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.
Repeatable: May be taken 1 time.
Covers intermediate features of the Microsoft Office suite for producing professional documents and presentations including Word, Excel, PowerPoint, and Access. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.
*Transfer Credit:** Transfers to CSU.

CABT 41  Excel
3 units; 3 hours Lecture, 2 hours Laboratory
Recommended Preparation: CABT 110A or equivalent basic keyboarding skills; Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.
Hybrid Requisite: Completion of or concurrent enrollment in CABT 106 or equivalent computer skills.
Repeatable: May be taken 1 time.
Covers intermediate features of Microsoft Excel, including creating and managing spreadsheets, charts, small databases and simple pivot tables. May be offered in a Distance-Learning Format. Some of the class hours for this course may be offered as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.
*Transfer Credit:** Transfers to CSU.

CABT 101  Computer Proficiency
3 units; 3 hours Lecture, 2 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatable: May be taken 1 time.
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. May be offered in a Distance-Learning Format. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.

CABT 102  10-Key Calculator
1 unit; 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.
Repeatable: May be taken 1 time.
Teaches the 10-key touch system using electronic calculators to solve typical business problems and applications in a self-paced course format. Covers 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.
Repeatable: May be taken 1 time.
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.
Repeatable: May be taken 1 time.
Develops 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 Computers at Cabrillo
0.5 unit; 0.5 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatable: May be taken 1 time.
Introduces the use of computers for beginning computer users with emphasis on the Cabrillo College student computer environment. Provides hands-on experience with basic computer operation, external storage devices, the Cabrillo student network, web-based campus resources, and the creation, storage, and retrieval of documents.
CABT 107  Applied Computer Skills
1.5 - 3 units; 1.5 hours Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Provides selected computer skills to meet the needs of specific groups of students, including, as appropriate, Word, Excel, PowerPoint, file management, e-mail, Internet research and using online course material. Designed for learning communities, but may also be offered to other students. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.

CABT 110A  Computer Keyboarding-Alphabet Keys
0.5 unit; 1.5 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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. Pass/No Pass grading only.

CABT 110B  Computer Keyboarding-Numbers/Symbols
0.5 unit; 1.5 hours Laboratory
Prerequisite: CABT 110A or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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. Pass/No Pass grading only.

CABT 110C  Computer Keyboarding-Speed Development
0.5 unit; 1.5 hours Laboratory
Prerequisite: CABT 110A or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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. Pass/No Pass grading only.

CABT 111  Using Speech Recognition Software
1 unit; 1 hour Lecture, 2 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Covers the use of speech recognition software to control the computer using voice commands in a hands-free environment.

CABT 118  Using Microsoft Windows
1 unit; 1 hour Lecture, 2 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Covers the fundamental use of the PC and the 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. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.

CABT 143  Beginning MS Excel
0.5 unit; 0.5 hour Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
An introduction to the fundamentals of Excel for Windows. Includes techniques for creating and managing effective spreadsheets.

CABT 156  Writing for the Workplace
3 units; 3 hours Lecture
Prerequisite: CABT 156.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Teaches techniques for composing, organizing, editing, and revising business and technical writing. Includes professional report writing, workplace writing, and writing for electronic and paper publication. May be offered in a Distance-Learning Format.

CABT 157  Business and Technical Writing
3 units; 3 hours Lecture
Prerequisite: CABT 156.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Teaches techniques for composing, organizing, editing, and revising business and technical writing. Includes professional report writing, workplace writing, and writing for electronic and paper publication. May be offered in a Distance-Learning Format.

CABT 160  Introduction to the Internet and the World Wide Web
1.5 units; 1.5 hours Lecture, 1 hour Laboratory
Recommended Preparation: CABT 110A or equivalent keyboarding skills; Eligibility for ENGL 100 and READ 100.
Hybrid Requisite: CABT 106 or equivalent skills.
Repeatability: May be taken 1 time.
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. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.
CABT 161 Creating a Simple Web Site
1.5 units; 1.5 hours Lecture, 1 hour Laboratory
Recommended Preparation: CABT 101 or CABT 160 or equivalent computer and Internet skills; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Covers creation of simple web sites with easy-to-use tools; includes basic graphics, photo editing, HTML commands, uploading and maintaining a web site. For professional web development courses, see the Digital Media program. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.

CABT 190AZ Special Topics in Computer Applications/Business Technology
0.5 - 3 units; 0.5 hour Lecture, 0.25 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Investigates 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. May be offered in a Distance-Learning Format.

CABT 210 Basic Computer Keyboarding
0.5 unit; 1.5 hours Laboratory
Repeatability: May be taken 1 time.
Introduces basic alphabetic keyboarding skills in a hands-on, self-paced format. Pass/No Pass grading only.

CABT 215 Introduction to Using the Computer
3 units; 3 hours Lecture, 2 hours Laboratory
Repeatability: May be taken 1 time.
Teaches basic computer use, including word processing, Internet, and e-mail, for students with no previous computer experience. May be taught bilingually in Spanish/English; textbook is in English.

CABT 272 Assistive Technology Instruction
1 unit; 1 hour Lecture, 2 hours Laboratory
Recommended Preparation: Eligibility for Disabled Student Programs and Services.
Repeatability: May be taken 1 time.
Covers essential computer skills for students with disabilities or assistive technology needs, including voice recognition, screen reading, screen magnification, text-to-speech software and ergonomic needs.

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 taken 1 time.
Enhances computer literacy and assistive technology skills through study of specific topics in assistive technology and completion of a culminating project.

CABT 290AZ Special Topics in Basic Computer Applications/Business Technology
0.5 - 3 units; 0.5 hour Lecture, 1.5 hours Laboratory
Repeatability: May be taken 1 time.
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. Some of the class hours for these courses may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about a particular course offering.

COMPUTER AND INFORMATION SYSTEMS
Natural and Applied Sciences Division
Wanda Garner, Division Dean
Division Office, Room 701
Gerlinde Brady, Program Contact, (831) 477-5672
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 786-4734
Call (831) 479-6328 for more information
http://www.cabrillo.edu/programs

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 Achievement, and skills certificates. The CSS program offers an A.S. Degree, a Certificate of Achievement, 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) 477-3533
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 786-4734
Call (831) 479-6328 for more information
http://www.cabrillo.edu/programs

Computer Networking and System Administration A.S. Degree

Program Description:

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.

A.S. General Education 21 Units

Core Courses (24 Units)  Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 81</td>
<td>Networking Fundamentals and Theory (Cisco CCNA 1)</td>
<td>4</td>
</tr>
<tr>
<td>CIS 82</td>
<td>Introduction to Routing Technologies and Theory (Cisco CCNA 2)</td>
<td>4</td>
</tr>
<tr>
<td>CIS 90</td>
<td>Introduction to UNIX/Linux</td>
<td>3</td>
</tr>
<tr>
<td>CIS 172</td>
<td>Introduction to Operating Systems</td>
<td>4</td>
</tr>
<tr>
<td>CIS 174</td>
<td>Virtualization Infrastructure</td>
<td>3</td>
</tr>
<tr>
<td>CIS 175</td>
<td>Fundamentals of Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>CIS 194</td>
<td>Microsoft Windows Client Administration</td>
<td>3</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>CS 98</td>
<td>UNIX/Linux Shell Programming</td>
<td>4</td>
</tr>
<tr>
<td>CS 131</td>
<td>Perl Programming in a Unix Environment</td>
<td>4</td>
</tr>
<tr>
<td>CS 132</td>
<td>Introduction to Internet Programming</td>
<td>4</td>
</tr>
<tr>
<td>CIS 60A-Z</td>
<td>Special Topics in Computer and Information Systems</td>
<td>0.5-4</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 (Cisco CCNA 3 &amp; 4)</td>
<td>1</td>
</tr>
<tr>
<td>CIS 160A-Z</td>
<td>Special Topics in Computer and Information Systems</td>
<td>0.5-4</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 185</td>
<td>Advanced Routing–Cisco CCNP ROUTE</td>
<td>3</td>
</tr>
<tr>
<td>CIS 187</td>
<td>Implementing IP Switching–Cisco CCNP SWITCH</td>
<td>3</td>
</tr>
<tr>
<td>CIS 188</td>
<td>Maintaining and Troubleshooting IP Networks</td>
<td>3</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 192A</td>
<td>UNIX/Linux Network Administration</td>
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<td>UNIX/Linux TCP/IP Administration</td>
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</tr>
<tr>
<td>CIS 192B</td>
<td>UNIX/Linux Network Services</td>
<td>2</td>
</tr>
<tr>
<td>CIS 193A</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</td>
<td>4</td>
</tr>
<tr>
<td>CIS 196</td>
<td>Microsoft Windows Network 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>
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</table>

Total Units 60

Completion of one or more of the Skills Certificates and Approved Electives (11 Units)  

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 46</td>
<td>CCNA Security</td>
<td>4</td>
</tr>
<tr>
<td>CIS 60A-Z</td>
<td>Special Topics in Computer and Information Systems</td>
<td>0.5-4</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 (Cisco CCNA 3 &amp; 4)</td>
<td>1</td>
</tr>
<tr>
<td>CIS 160A-Z</td>
<td>Special Topics in Computer and Information Systems</td>
<td>0.5-4</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 185</td>
<td>Advanced Routing–Cisco CCNP ROUTE</td>
<td>3</td>
</tr>
<tr>
<td>CIS 187</td>
<td>Implementing IP Switching–Cisco CCNP SWITCH</td>
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<tr>
<td>CIS 195</td>
<td>Microsoft Windows Server Administration</td>
<td>4</td>
</tr>
<tr>
<td>CIS 196</td>
<td>Microsoft Windows Network 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>
</tbody>
</table>

Computer Networking and System Administration Certificate of Achievement

Program Student Learning Outcomes:

1. Demonstrate mastery of a computing knowledge base equivalent to passing an industry-level certification such as CompTIA, Cisco, Microsoft, Linux. (Global Awareness, Critical Thinking)

2. Analyze existing network and/or system configurations, and identify weaknesses in their security. (Critical Thinking, Global Awareness)

Core Courses (24 Units)  Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 81</td>
<td>Networking Fundamentals and Theory (Cisco CCNA 1)</td>
<td>4</td>
</tr>
<tr>
<td>CIS 82</td>
<td>Introduction to Routing Technologies and Theory (Cisco CCNA 2)</td>
<td>4</td>
</tr>
<tr>
<td>CIS 90</td>
<td>Introduction to UNIX/Linux</td>
<td>3</td>
</tr>
<tr>
<td>CIS 172</td>
<td>Introduction to Operating Systems</td>
<td>4</td>
</tr>
<tr>
<td>CIS 174</td>
<td>Virtualization Infrastructure</td>
<td>3</td>
</tr>
<tr>
<td>CIS 175</td>
<td>Fundamentals of Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>CIS 194</td>
<td>Microsoft Windows Client Administration</td>
<td>3</td>
</tr>
<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>CS 98</td>
<td>UNIX/Linux Shell Programming</td>
<td>4</td>
</tr>
<tr>
<td>CS 131</td>
<td>Perl Programming in a Unix Environment</td>
<td>4</td>
</tr>
<tr>
<td>CS 132</td>
<td>Introduction to Internet Programming</td>
<td>4</td>
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</tbody>
</table>

And one of the following courses:

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</thead>
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</tr>
<tr>
<td>CS 19</td>
<td>C++ Programming</td>
<td>4</td>
</tr>
</tbody>
</table>
Cisco Certified Network Associate (CCNA) Skills Certificate

Program Description:
Prepares the student to take the Cisco Certified Network Associate (CCNA) industry certification exam.

Program Learning Outcomes:
1. Demonstrate mastery of a networking knowledge base equivalent to obtaining CCNA certification from Cisco Systems. (Global Awareness)
2. Design and implement a converged network. (Global Awareness, Professional Development)
3. Troubleshoot and solve configuration errors on routers and switches. (Critical Thinking)

Required Courses:
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 (Cisco CCNA 3 & 4) ............................. 4

Total Units 12

Microsoft System Administration Skills Certificate

Program Description:
Prepares the student to take the Microsoft Certified Professional industry certification exams.

Program Learning Outcomes:
1. Demonstrate mastery of a computing knowledge base equivalent to obtaining Microsoft Certified Technology Specialist (MCTS) certifications from Microsoft. (Global Awareness, Critical Thinking)
2. Administer a network of Microsoft computers by performing installations and regular backups, creating user accounts, configuring and troubleshooting software packages, and updating systems with security patches. (Critical Thinking, Communication)
3. Configure a local area network of Microsoft client and server computers that allows for the sharing of resources in a secure manner. (Critical Thinking, Professional Development)

CIS 81 Networking Fundamentals and Theory (Cisco CCNA 1) .......................... 4
CIS 194 Microsoft Windows Client Administration ........................................... 3
CIS 195 Microsoft Windows Server Administration (Semester 1) ...................... 4
CIS 196 Microsoft Windows Network Administration (Semester 2) ..................... 4

Total Units 15
UNIX/Linux System Administration Skills Certificate

Program Description:
Prepares the student to work with the UNIX/Linux operating system at the client and server levels.

Program Learning Outcomes:
1. Demonstrate mastery of a computing knowledge base equivalent to passing an industry-level certification such as CompTIA, Novel, Sair Gnu, Linux Professional Institute, etc. (Global Awareness, Critical Thinking)
2. Administer a network of Linux computers by performing installations and regular backups, creating user accounts, configuring and troubleshooting software packages, and updating systems with security patches. (Critical Thinking, Communication)
3. Build a simple Linux Operating System distribution on removable media to support multiple users and resource sharing in a local area network. (Critical Thinking, Professional Development)

Required Courses:
- CIS 90 Introduction to UNIX/Linux .......................... 3
- CIS 191A UNIX/Linux Installation and Configuration .................. 2
- CIS 191B UNIX/Linux System Administration .............................. 2

Take 8 units from the following courses: Units
- CIS 98 UNIX/Linux Shell Programming .................................. 4
- or
- CIS 192A UNIX/Linux TCP/IP Administration .......................... 2
- and
- CIS 192B UNIX/Linux Network Services .................................. 2
- or
- CIS 193A UNIX/Linux Host Security Basics ................................. 2
- and
- CIS 193B UNIX/Linux Network Security Basics ............................. 2

Total Units 15

COMPUTER SUPPORT

Natural and Applied Sciences Division
Wanda Garner, Division Dean
Division Office, Room 701
Gerlinde Brady, Program Contact, (831) 477-5672
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 786-4734
Call (831) 479-6328 for more information
http://www.cabrillo.edu/programs

Computer Support A.S. Degree

Program Description:
The Computer Support 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 Achievement, 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 majors early in their academic career to help determine their interest in pursuing the major: CS 1 and CS 1L.

Learning Outcomes:
1. Explain Information Technology (IT) concepts as they relate to the preparation and presentation of technical information. (Critical Thinking, Communication, Professional Development)
2. Document and communicate problem, analysis and resolution process. (Critical Thinking, Communication, Professional Development)
3. Gather valid data to identify project requirements. (Critical Thinking, Communication)
4. Implement solutions to customer problems that minimize risk and disruption to productivity. (Critical Thinking, Communication, Professional Development)

A.S. General Education 21 Units

Core Courses (25 Units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</tr>
</thead>
<tbody>
<tr>
<td>CIS 81</td>
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<td>4</td>
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<tr>
<td>CIS 90</td>
<td>Introduction to UNIX/Linux</td>
<td>3</td>
</tr>
<tr>
<td>CIS 103</td>
<td>Technical Support as a Profession</td>
<td>4</td>
</tr>
<tr>
<td>CIS 170</td>
<td>Introduction to Computer Hardware and Software</td>
<td>4</td>
</tr>
<tr>
<td>CIS 172</td>
<td>Introduction to Operating Systems</td>
<td>4</td>
</tr>
<tr>
<td>CIS 174</td>
<td>Virtualization Infrastructure</td>
<td>3</td>
</tr>
<tr>
<td>CIS 194</td>
<td>Microsoft Windows Client Administration</td>
<td>3</td>
</tr>
<tr>
<td>CIS 81</td>
<td>Networking Fundamentals and Theory (Cisco CCNA 1)</td>
<td>4</td>
</tr>
</tbody>
</table>

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 (14 Units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>CIS 60A-ZZ</td>
<td>Special Topics in Computer and Information Systems</td>
<td>0.5-4</td>
</tr>
<tr>
<td>CIS 82</td>
<td>Introduction to Routing Technologies and Theory (Cisco CCNA 2)</td>
<td>4</td>
</tr>
<tr>
<td>CIS 98</td>
<td>UNIX/Linux Shell Programming</td>
<td>4</td>
</tr>
<tr>
<td>CIS 99C</td>
<td>Career Work Experience Education</td>
<td>1-4</td>
</tr>
<tr>
<td>CIS 131</td>
<td>Perl Programming in a Unix Environment</td>
<td>4</td>
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<tr>
<td>CIS 132</td>
<td>Introduction to Internet Programming</td>
<td>4</td>
</tr>
<tr>
<td>CIS 154</td>
<td>Intro. to Client/Server Relational Database Management Systems</td>
<td>4</td>
</tr>
<tr>
<td>CIS 160A-Z</td>
<td>Special Topics in Computer and Information Systems</td>
<td>0.5-4</td>
</tr>
<tr>
<td>CIS 164</td>
<td>Introduction to Managing and Securing a Web Server</td>
<td>3</td>
</tr>
<tr>
<td>CIS 165PH</td>
<td>Introduction to Programming Database-Driven Websites With PHP</td>
<td>4</td>
</tr>
<tr>
<td>CIS 175</td>
<td>Fundamentals of Computer Security</td>
<td>3</td>
</tr>
<tr>
<td>CIS 191AB</td>
<td>UNIX/Linux Installation, Configuration and Administration</td>
<td>4</td>
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<td>CIS 191A</td>
<td>UNIX/Linux Installation and Configuration</td>
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<td>CIS 192B</td>
<td>UNIX/Linux Network Services</td>
<td>2</td>
</tr>
<tr>
<td>CIS 195</td>
<td>Microsoft Windows Server Administration (Semester 1)</td>
<td>4</td>
</tr>
</tbody>
</table>
Computer Support Certificate of Achievement

**Learning Outcomes:**

1. Explain Information Technology (IT) concepts as they relate to the preparation and presentation of technical information. (Critical Thinking, Communication, Professional Development)
2. Analyze help desk tracking software reports. (Critical Thinking, Communication, Professional Development)
3. Gather valid data to identify project requirements. (Critical Thinking)

**Core Courses (25 Units)**

- CIS 81 Networking Fundamentals and Theory (Cisco CCNA 1) ........................................ 4
- CIS 90 Introduction to UNIX/Linux ......................................................... 3
- CIS 103 Technical Support as a Profession .............................................. 4
- CIS 170 Introduction to Computer Hardware and Software . . 4
- CIS 172 Introduction to Operating Systems ............................................ 4
- CIS 174 Virtualization Infrastructure ......................................................... 3
- CIS 194 Microsoft Windows Client Administration ............................. 3

**Required Courses (6 Units)**

- COMM 2 Group Discussion ................................................................. 3
- or
- COMM 10 Communication Process ...................................................... 3
- ENGL 1A/1AH/1AMC/1AMCH ............................................................... 3

**Total Units** 60

*spring only; **usually spring only, even years; ***fall only

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**A+ Preparation Skills Certificate**

**Program Description:**

Prepares the student to work with computer hardware and software, and take the CompTIA A+ industry certification exam.

All skills certificates assume the successful completion of CS1 and CS 1L or equivalent skills.

**Program Learning Outcomes:**

1. Analyze symptoms of host software, hardware or networking configuration errors. (Critical Thinking)
2. Classify a variety of hardware, software and firmware on a PC. (Critical Thinking, Professional Development)
3. Perform basic network hardware installations. (Professional Development)

**Required Courses:**

- CIS 170 Introduction to Computer Hardware and Software . . 4
- CIS 172 Introduction to Operating Systems ............................................ 4
- CIS 194 Microsoft Windows Client Administration ............................. 3
- CIS 195 Microsoft Windows Server Administration (Semester 1) .......... 4

**Total Units** 15

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**Computer Support Technician 1 Skills Certificate**

**Program Description:**

Prepares the student to provide support to users in the information processing department of a company by using specialized computer knowledge and skills. Specifically, support technicians communicate effectively with users and ensure computer hardware and software operate properly.

**Program Learning Outcomes:**

1. Develop technical documentation for computer user training. (Critical Thinking, Professional Development, Communication)
2. Justify the purpose of logs, reports, training manuals and other forms of technical documentation. (Critical Thinking, Communication, Professional Development)
3. Describe and analyze problems that may arise from cultural and language differences between customer and service technician. (Global Awareness, Communication, Professional Development)

**Required Courses:**

- CIS 90 Introduction to UNIX/Linux ......................................................... 3
- or
- CIS 172 Introduction to Operating Systems ............................................ 4
- CIS 103 Technical Support as a Profession .............................................. 4
- CIS 170 Introduction to Computer Hardware and Software . . 4
- CIS 174 Virtualization Infrastructure ......................................................... 3
- CIS 194 Microsoft Windows Client Administration ............................. 3
- COMM 6 Listening ................................................................. 1

**Total Units** 15-16
Computer and Information Systems Courses

CIS 46 CCNA Security
4 units; 4 hours Lecture, 2 hours Laboratory
Prerequisite: CIS 82 and CIS 83 or equivalent knowledge.
Recommended Preparation: Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.
Teaches network security principles including firewall technologies, AAA, intrusion prevention, securing LANs, implementing VPNs, and managing secure networks. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

CIS 60AZZ Special Topics in Computer and Information Systems
0.5 - 4 units; 0.5 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Investigates special selected areas of interest in computer and information systems not covered by regular catalog offerings. The special areas will be announced, described, and given their own titles and letter designations in the Schedule of Classes. May be offered in a Distance-Learning Format.
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 254CM or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Presents networking protocols, standards, concepts, and terminology including Ethernet, ARP, ICMP, IP addressing, sub-netting, 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. Provides 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. May be offered in a Distance-Learning Format.
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.
Repeatability: May be taken 1 time.
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.
Repeatability: May be taken 1 time.
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 90 Introduction to UNIX/Linux
3 units; 3 hours Lecture
Recommended Preparation: CS 1L or CIS 172; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.
CIS 98  UNIX/Linux Shell Programming
4 units; 3 hours Lecture, 5 hours Laboratory
Prerequisite: CIS 90.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Presents an introduction to shell programming in a UNIX/Linux environment, and is designed for system administrators or technical users with little or no programming background. Topics include use of a text editor, the features of the Bash shell, variables, control structures, functions, signal handling, string manipulation, file access and basic programming style. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

CIS 103  Technical Support as a Profession
4 units; 4 hours Lecture, 2 hours Laboratory
Prerequisite: CIS 170 and CIS 172 or equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Teaches technical support skills for those seeking employment in the computer and information systems field. Includes 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, 5 hours Laboratory
Prerequisite: CS 11 or CS 12J or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Introduces 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, 5 hours Laboratory
Recommended Preparation: DM 60; Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.
Presents an introduction to Internet-related programming using primarily client-side scripting languages like JavaScript. Also introduces a server-side scripting language like PHP. Covers basic programming techniques including simple data types, control structures, functions and expressions. Topics include Web-based data collection, form verification, and Ajax. May be offered in a Distance-Learning Format.

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 1 time.
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. May be offered in a Distance-Learning Format.

CIS 154  Intro. to Client/Server Relational Database Management Systems
4 units; 3 hours Lecture, 5 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Presents the installation, use, and administration of MySQL Client/Server Relational Database Management Installation along with the use and administration of a Client/Server Relational Database Management System. The design, creation, and administration of enterprise databases are covered, along with performance tuning, security and disaster recovery. Additional topics include: SQL (Structured Query Language), data types, functions, normalization, and a brief introduction to server-level programming and language interfaces for developing database-driven websites, emphasizing PHP systems. May be offered in a Distance-Learning Format.

CIS 160AZ  Special Topics in Computer and Information Systems
0.5 - 4 units; 0.5 hour Lecture or 1.5 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Investigates special selected areas of interest in Computer and Information Systems not covered by regular catalog offerings. The special areas will be announced, 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, 2 hours Laboratory
Prerequisite: CIS 90.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Covers installation, how to 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 165PH  Introduction to Programming Database-Driven Websites With PHP  
4 units; 3 hours Lecture, 5 hours Laboratory  
Hybrid Requisite: Completion of or current enrollment in CS 11 or completion of or current enrollment in CS 12J or completion of or current enrollment in CIS 132.  
Recommended Preparation: DM 60; Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154  
Repeatability: May be taken 1 time.  
Teaches programming of database-driven, web-based applications (such as an eCommerce website) that require online data storage and retrieval and a high degree of user/website interactivity. The web programming environment used is PHP accessing a MySQL database. May be offered in a Distance-Learning Format.

CIS 174  Virtualization Infrastructure  
3 units; 3 hours Lecture, 2 hours Laboratory  
Prerequisite: CIS 81 and CIS 172.  
Recommended Preparation: CIS 170; Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.  
Repeatability: May be taken 1 time.  
Teaches installation, configuration, and management of virtual infrastructure. Covers virtualization of hardware, computing systems, and applications. May be offered in a Distance-Learning Format.

CIS 170  Introduction to Computer Hardware and Software  
4 units; 4 hours Lecture, 2 hours Laboratory  
Prerequisite: CS 1 or equivalent.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Covers installing, maintaining, and upgrading PC-type (Intel and Intel compatible) microcomputer systems. Presents the underlying technology and methodology for performing these operations. Introduces networking, PC hardware and software installation, maintenance, safety, troubleshooting, and provides an in-depth exposure to personal computer hardware and desktop operating systems. Helps prepare students to pass the CompTIA A+ industry certification. May be offered in a Distance-Learning Format.

CIS 175  Fundamentals of Computer Security  
3 units; 3 hours Lecture, 2 hours Laboratory  
Prerequisite: CIS 170; Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Introduces the threats and vulnerabilities of computer systems, and helps prepare for security-related industry certifications such as CompTIA Security+. Topics will include intrusion detection, intrusion prevention, encryption, VPNs, authentication, and implementing security procedures. 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 185  Advanced Routing—Cisco CCNP ROUTE  
3 units; 3 hours Lecture, 2 hours Laboratory  
Prerequisite: CIS 82 or equivalent knowledge.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Teaches implementing, monitoring, and maintaining routing services in an enterprise network. Covers planning, configuring, and verifying the implementation of complex enterprise LAN and WAN routing solutions, using a range of routing protocols in IPv4 and IPv6 environments. Also covers secure routing solutions for supporting branch offices and mobile workers. One of three Cisco CCNP (Cisco Certified Networking Professional) courses. Prepares students for the CCNP ROUTE exam. May be offered in a Distance-Learning Format.

CIS 172  Introduction to Operating Systems  
4 units; 4 hours Lecture, 2 hours Laboratory  
Recommended Preparation: CS 1 and CS 1L or equivalent; Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Provides an 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. May be offered in a Distance-Learning Format.

CIS 187  Implementing IP Switching—Cisco CCNP SWITCH  
3 units; 3 hours Lecture, 2 hours Laboratory  
Prerequisite: CIS 83 or passing the CCNA exam or equivalent experience.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Teaches implementation, monitoring, and maintaining switching in converged enterprise campus networks. Covers planning, configuring, and verifying the implementation of complex enterprise switching solutions. Also covers the secure integration of VLANs, WLANs, voice, and video into campus networks. May be offered in a Distance-Learning Format.
CIS 188  
**Maintaining and Troubleshooting IP Networks**
3 units; 3 hours Lecture, 2 hours Laboratory  
Prerequisite: CIS 185 and CIS 187.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.

Teaches monitoring and maintaining complex, enterprise routed and switched IP networks. Covers planning and execution of regular network maintenance, as well as support and troubleshooting using technology-based processes and best practices, based on systematic and industry recognized approaches. One of three Cisco CCNP (Cisco Certified Networking Professional) courses. Prepares students for the Troubleshooting and Maintaining Cisco IP Networks TSHOOT exam. May be offered in a 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.  
Repeatability: May be taken 1 time.

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. May be offered in a Distance-Learning Format.

CIS 191AB  
**UNIX/Linux Installation, Configuration and Administration**
4 units; 4 hours Lecture, 4 hours Laboratory  
Prerequisite: CIS 90 or equivalent.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.

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 Linux certifications. May be offered in a Distance-Learning Format.

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.  
Repeatability: May be taken 1 time.

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. May be offered in a Distance-Learning Format.

CIS 192A  
**UNIX/Linux TCP/IP Administration**
2 units; 2 hours Lecture, 2 hours Laboratory  
Prerequisite: CIS 191A; Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.

Teaches building, monitoring and troubleshooting of 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. May be offered in a Distance-Learning Format.

CIS 192AB  
**UNIX/Linux Network Administration**
4 units; 4 hours Lecture, 2 hours Laboratory  
Prerequisite: CIS 90 or equivalent.  
Recommended Preparation: CIS 191AB; Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.

Introduces skills required to administer UNIX/Linux networks. 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 Linux certifications. May be offered in a Distance-Learning Format.

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 1 time.

Installs, configures, and manages 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. May be offered in a Distance-Learning Format.
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.
Repeatability: May be taken 1 time.
Teaches how to defend a UNIX/Linux network environment using network sniffers, intrusion detection and firewall technologies. Covers basic network traffic filtering and analysis, denial of service attacks, honeypots, authentication, encryption, VPNs and the securing of network services. May be offered in a Distance-Learning Format.

CIS 193AB  UNIX/Linux Security Administration
4 units; 4 hours Lecture, 4 hours Laboratory
Prerequisite: CIS 192AB.
Recommended Preparation: CIS 175; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Teaches how to perform the tasks and examine the strategies of UNIX/Linux host, files, and network security management. Helps develop skills in managing firewalls, performing security audits, and detecting intrusions. Covers host-based intrusion detection, password cracking, auditing, access control, file encryption, VPNs and securing network services. Prepares for industry level certification in the area of Linux system security. May be offered in a Distance-Learning Format.

CIS 193B  UNIX/Linux Network Security Basics
2 units; 2 hours Lecture, 2 hours Laboratory
Prerequisite: CIS 192A.
Recommended Preparation: CIS 175; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Teaches how to secure a UNIX/Linux computer network using operating system security mechanisms as well as a variety of auditing, attack, and defense tools. Covers network intrusion detection, network traffic monitoring and analysis, denial of service attacks, and securing network services. May be offered in a Distance-Learning Format.

CIS 194  Microsoft Windows Client Administration
3 units; 3 hours Lecture, 3 hours Laboratory
Recommended Preparation: CIS 172 or equivalent knowledge; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Configure and administer the Microsoft Windows client operating system. 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. 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, 3 hours Laboratory
Recommended Preparation: CIS 172 (may be taken concurrently); or equivalent knowledge; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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: Standalone file sharing, distributed file system, Active Directory and Group Policy. 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. 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, 3 hours Laboratory
Prerequisite: CIS 195 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Implement and manage Microsoft network environments. Covers network issues in a peer-to-peer environment as well as a domain environment with Active Directory. Configure TCP/IP protocols, DHCP, DNS, and Routing and Remote Access Services; manage, secure, and troubleshoot Web, FTP, Certificate, and Terminal services and clients. Build upon the operating system features learned in CIS 194 and CIS 195. Prepares for one of the exams required for MCSA certification. May be offered in a Distance-Learning Format.

COMPUTER SCIENCE
Natural and Applied Sciences Division
Wanda Garner, Division Dean
Division Office, Room 701
Steve Hodges, Program Chair, (831) 479-6494
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 786-4734
Call (831) 479-6328 for more information
http://www.cabrillo.edu/programs

Computer Science
Model Program:
An Associate Degree requires 60 units appropriate to your educational goal, to include general education and at least 18 units in a major. Courses should be selected to meet the lower-division major preparation requirements at your intended transfer university - these specific requirements can be found at www.assist.org for 4-year public institutions in California. Please see a counselor for advisement to ensure you are taking the best possible courses given your goal.

The department presents the following suggested model program for this major. The courses listed below may or may not be appropriate depending on your specific goal. Please see a counselor for advisement for transfer to any 4-year institution.
Computer Science A.S. Degree

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 one degree program, four certificates of achievement, and two skills certificates. The A.S. Degree program transfers 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 11 (C++), CS 12GP, or CS 12J (Java).

Learning Outcomes

1. Demonstrate software development skills necessary to succeed in programming intensive majors at 4-year colleges. (Critical Thinking, Professional Development)

2. Demonstrate the capacity to use computer software to communicate and interact with computer hardware. (Critical Thinking, Communication, Professional Development)

3. Demonstrate information literacy individually, and as a team member (proper citations, documentation, ethical practices). (Critical Thinking, Communication, Professional Development, Global Awareness)

4. Demonstrate professional conduct by meeting strict project deadlines, participating in self-managed teams, and adopting classroom behavioral norms. (Communication, Professional Development)

General Education GE Units

Computer Science Majors

Core courses for all transfer students

(39 Units) Units
CS 19 C++ Programming .................. 4
or
CS 20J Java Programming .................. 4
CS 21 * Introduction to Data Structures and Algorithms ........ 4
CS 23 *** Discrete Mathematics ............ 4
or
MATH 23 ** Discrete Mathematics ............ 4
MATH 5A Analytic Geometry and Calculus I .......... 5
MATH 5B Analytic Geometry and Calculus II .......... 5

The following core courses are required for transfer for most computer science majors and transfer universities.

CS 24 ** Elementary Computer Organization ........ 4
MATH 5C Analytic Geometry and Calculus III .......... 5
MATH 6 * Introduction to Linear Algebra ........... 3
MATH 7 Introduction to Differential Equations .......... 3
CHEM 1A General Chemistry I .............. 5
CHEM 1B General Chemistry II .............. 5
or
PHYS 4A Physics for Scientists and Engineers I .......... 5
PHYS 4B ** Physics for Scientists and Engineers II .......... 5

Total Units 60

Computer Engineering Majors

Core courses for all transfer students

(39 Units) Units
CS 19 C++ Programming .................. 4
or
CS 20J Java Programming .................. 4
MATH 5A Analytic Geometry and Calculus I .......... 5
MATH 5B Analytic Geometry and Calculus II .......... 5
MATH 5C Analytic Geometry and Calculus III .......... 5
MATH 6 * Introduction to Linear Algebra ........... 3
MATH 7 Introduction to Differential Equations .......... 3
CHEM 1A General Chemistry I .............. 5
PHYS 4A Physics for Scientists and Engineers I .......... 5
and
PHYS 4B ** Physics for Scientists and Engineers II .......... 5

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 *** Discrete Mathematics ............ 4
or
MATH 23 ** Discrete Mathematics ............ 4
CS 24 ** Elementary Computer Organization ........ 4
PHYS 4C * Physics for Scientists and Engineers III .......... 5
or
CHEM 1B General Chemistry II .............. 5
or
BIO 1A Cell and Molecular Biology ........... 5
and
BIO 1B Animal Diversity and Evolutionary Principles .......... 5

Total Units 60

*spring only; **fall only; usually spring only, even years
C++ Programming Certificate of Achievement
Program Description:

The C++ Programming Certificate of Achievement is intended to meet the needs of students pursuing academic and occupational disciplines where knowledge of the C++ programming language is required. These disciplines include, but are not limited to, computer science, computer engineering, digital media, computer networking, computer system administration and engineering.

MATH 152 (Intermediate Algebra) is required for the beginning programming course (CS 11), and either completion of MATH 4 (Precalculus Algebra and Trigonometry) or the completion of the MATH 2/MATH 3 series (two-semester version of MATH 4) is required for the intermediate C++ programming course (CS 19).

Upon completion of the C++ Programming Certificate of Achievement a student will have satisfied the following objectives: Design and implement C++ programs to solve problems of simple and moderate complexity using procedural and object-oriented methods. Correctly and effectively use the following C++ language elements: Classes and objects, structured data types such as arrays and files, operator overloading, inheritance and polymorphism. Design and implement basic dynamic data structures including a Linked List. Write code that is well documented and exhibits clarity of expression through effective use of mnemonic identifiers, indentation and comments. Apply the following software development principles and techniques: stepwise refinement, top-down and bottom-up design, incremental development, testing and debugging, information hiding and data encapsulation. Develop C++ code in a command-line UNIX environment using standard UNIX tools, gcc compiler, emacs text editor, and gdb debugger. Design and implement C++ language programs to implement mathematical concepts such as statistical array value analysis, sets, trigonometric functions, simple geometry, and complex numbers.

For the occupational student the body of work completed for this certificate represents the intermediate programming preparation necessary for an entry level programmers working in a technical support capacity.

For the transfer student, completion of this certificate represents the first year courses within a four-year computer science program at most CSU and UC campuses.

Required Courses:

<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>CS 1L</td>
<td>Technology Tools</td>
<td>2</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>CIS 132</td>
<td>Introduction to Internet Programming</td>
</tr>
<tr>
<td>CS 19</td>
<td>C++ Programming</td>
<td>4</td>
</tr>
<tr>
<td>MATH 4</td>
<td>Precalculus Algebra and Trigonometry</td>
<td>5</td>
</tr>
<tr>
<td>or</td>
<td>MATH 2</td>
<td>Precalculus Algebra</td>
</tr>
<tr>
<td>and</td>
<td>MATH 3</td>
<td>Precalculus Trigonometry</td>
</tr>
<tr>
<td>COMM 2</td>
<td>Group Discussion</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>COMM 10</td>
<td>Communication Process</td>
</tr>
<tr>
<td>ENGL 1A/1AH/1AMC/1AMCH</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units | 24-26 |

Java Programming Certificate of Achievement
Program Description:

The Java Programming Certificate of Achievement is intended to meet the needs of students pursuing academic and occupational disciplines where knowledge of the Java programming language is required. These disciplines include, but are not limited to, computer science, computer engineering, computer networking, bioinformatics and engineering.

Required Courses:

<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>CS 1L</td>
<td>Technology Tools</td>
<td>2</td>
</tr>
<tr>
<td>CS 12GP</td>
<td>Introduction to Programming Using Games and Simulations</td>
<td>4</td>
</tr>
<tr>
<td>or</td>
<td>CS 12J</td>
<td>Introduction to Programming Concepts and Methodology, Java</td>
</tr>
<tr>
<td>CS 20J</td>
<td>Java Programming</td>
<td>4</td>
</tr>
<tr>
<td>MATH 4</td>
<td>Precalculus Algebra and Trigonometry</td>
<td>5</td>
</tr>
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<td>or</td>
<td>MATH 2</td>
<td>Precalculus Algebra</td>
</tr>
<tr>
<td>and</td>
<td>MATH 3</td>
<td>Precalculus Trigonometry</td>
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<tr>
<td>COMM 2</td>
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<tr>
<td>or</td>
<td>COMM 10</td>
<td>Communication Process</td>
</tr>
<tr>
<td>ENGL 1A/1AH/1AMC/1AMCH</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units | 24-26 |

Programming Certificate of Achievement
Program Description:

The Programming Certificate of Achievement is intended to meet the needs of students pursuing academic and occupational disciplines where knowledge of the C++ or Java programming language and knowledge of computer algorithms is required. These disciplines include, but are not limited to, computer science, computer engineering, computer networking, computer system administration, bioinformatics and engineering.

Required Courses:

<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>CS 20J</td>
<td>Java Programming</td>
</tr>
<tr>
<td>CS 21</td>
<td>* Introduction to Data Structures and Algorithms</td>
<td>4</td>
</tr>
<tr>
<td>CS 23</td>
<td>** Discrete Mathematics</td>
<td>4</td>
</tr>
<tr>
<td>or</td>
<td>MATH 23</td>
<td>** Discrete Mathematics</td>
</tr>
<tr>
<td>CS 24</td>
<td>** Elementary Computer Organization</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Units | 24-26 |
Take 2 of the following CIS courses:  

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 98 UNIX/Linux Shell Programming</td>
<td>4</td>
</tr>
<tr>
<td>CIS 131 Perl Programming in a UNIX Environment</td>
<td>4</td>
</tr>
<tr>
<td>CIS 132 Introduction to Internet Programming</td>
<td>4</td>
</tr>
</tbody>
</table>

And

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 5A Analytic Geometry and Calculus I</td>
<td>5</td>
</tr>
<tr>
<td>COMM 2 Group Discussion</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>COMM 10 Communication Process</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1A/1AH/1AMC/1AMCH</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units 35  
*spring only; **fall only; ***usually spring only, even years

Web Programming Certificate of Achievement  
Program Description:  
The Web Programming Certificate of Achievement is intended to meet the needs of students pursuing academic and occupational disciplines where web programming is required. These disciplines include, but are not limited to, computer science, computer engineering, digital media, business communications and marketing, economics, and engineering.

Required Courses:  

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 12GP Introduction to Programming Using Games and Simulations</td>
<td>4</td>
</tr>
<tr>
<td>or</td>
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</tr>
<tr>
<td>CS 12J Introduction to Programming Concepts and Methodology, Java</td>
<td>4</td>
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<tr>
<td>or</td>
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</tr>
<tr>
<td>CS 20J Java Programming</td>
<td>4</td>
</tr>
<tr>
<td>CIS 131 Perl Programming in a UNIX Environment</td>
<td>4</td>
</tr>
<tr>
<td>CIS 132 Introduction to Internet Programming</td>
<td>4</td>
</tr>
<tr>
<td>CIS 165PH Introduction to Programming Database-Driven Websites With PHP</td>
<td>4</td>
</tr>
<tr>
<td>MATH 154 Elementary Algebra</td>
<td>5</td>
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<td>or</td>
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</tr>
<tr>
<td>MATH 152 Intermediate Algebra</td>
<td>5</td>
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<tr>
<td>or</td>
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<tr>
<td>MATH 4 Precalculus Algebra and Trigonometry</td>
<td>5</td>
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<td>or</td>
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</tr>
<tr>
<td>MATH 2 Precalculus Algebra</td>
<td>4</td>
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<td>and</td>
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<tr>
<td>COMM 10 Communication Process</td>
<td>3</td>
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<tr>
<td>ENGL 1A/1AH/1AMC/1AMCH</td>
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</tbody>
</table>

Total Units 27-29

Game Programming Skills Certificate  
Program Description:  
Prepares the student to program at an intermediate level with an emphasis on video game programming techniques.

Required Courses:  

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 11 Introduction to Programming Concepts and Methodology, C++</td>
<td>4</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>CS 12J Introduction to Programming Concepts and Methodology, Java</td>
<td>4</td>
</tr>
<tr>
<td>CS 20J Java Programming</td>
<td>4</td>
</tr>
<tr>
<td>CS 12GP Introduction to Programming Using Games and Simulations</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Units 12

Web Programming Fundamentals Skills Certificate  
Program Description:  
Prepares the student to create interactive and dynamic web pages using client-side and server-side programming languages.

Required Courses:  

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 12J Introduction to Programming Concepts and Methodology, Java</td>
<td>4</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>CS 20J Java Programming</td>
<td>4</td>
</tr>
<tr>
<td>CIS 132 Introduction to Internet Programming</td>
<td>4</td>
</tr>
<tr>
<td>CIS 165PH Introduction to Programming Database-Driven Websites With PHP</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Units 15

Computer Science Courses  

CS 1 Introduction to Computers and Computer Technology  
3 units; 3 hours Lecture, 2 hours Laboratory  
Recommended Preparation: Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.

Repeatability: May be taken 1 time.

Surveys the fields of study within computer science and computer technology with a focus on computer literacy in the 21st century. Includes: 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. May be offered in a Distance-Learning Format.

Transfer Credit: Transfers to CSU; UC.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Lecture</th>
<th>Laboratory</th>
<th>Prerequisites</th>
<th>Preparations</th>
<th>Repeatable</th>
<th>Transfer Credit</th>
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<tbody>
<tr>
<td>CS 1L</td>
<td>Technology Tools</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>MATH 154</td>
<td>Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154</td>
<td>May be taken 1 time</td>
<td>Transfers to CSU; UC</td>
</tr>
<tr>
<td>CS 11</td>
<td>Introduction to Programming Concepts and Methodology, C++</td>
<td>4</td>
<td>3</td>
<td>5</td>
<td>MATH 152</td>
<td>Eligibility for ENGL 100 and READ 100</td>
<td>May be taken 1 time</td>
<td>Transfers to CSU; UC</td>
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<tr>
<td>CS 12AL</td>
<td>Introduction to Programming for the Non-Major</td>
<td>4</td>
<td>3</td>
<td>5</td>
<td>Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154</td>
<td>May be taken 1 time</td>
<td>Transfers to CSU; UC</td>
<td></td>
</tr>
<tr>
<td>CS 12GP</td>
<td>Introduction to Programming Using Games and Simulations</td>
<td>4</td>
<td>3</td>
<td>5</td>
<td>MATH 154</td>
<td>Eligibility for ENGL 100 and READ 100</td>
<td>May be taken 1 time</td>
<td>Transfers to CSU; UC</td>
</tr>
<tr>
<td>CS 19</td>
<td>C++ Programming</td>
<td>4</td>
<td>3</td>
<td>5</td>
<td>MATH 4 or MATH 2 and MATH 3</td>
<td>Eligibility for ENGL 100 and READ 100</td>
<td>May be taken 1 time</td>
<td>Transfers to CSU; UC</td>
</tr>
<tr>
<td>CS 20GP</td>
<td>Game Design and Programming</td>
<td>4</td>
<td>3</td>
<td>5</td>
<td>CS 11 or CS 12GP or CS 12J or equivalent skills</td>
<td>Eligibility for ENGL 100 and READ 100</td>
<td>May be taken 1 time</td>
<td>Transfers to CSU; UC</td>
</tr>
<tr>
<td>CS 20J</td>
<td>Java Programming</td>
<td>4</td>
<td>3</td>
<td>5</td>
<td>MATH 4 or MATH 2 and MATH 3</td>
<td>Eligibility for ENGL 100 and READ 100</td>
<td>May be taken 1 time</td>
<td>Transfers to CSU; UC</td>
</tr>
</tbody>
</table>
CS 21   Introduction to Data Structures and Algorithms
4 units; 3 hours Lecture, 5 hours Laboratory
Prerequisite: CS 19 or CS 20J or equivalent skills and MATH 5A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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. May be offered in a Distance-
Learning Format.
Transfer Credit: Transfers to CSU; UC. C-ID COMP 132

CS 23   Discrete Mathematics
4 units; 3 hours Lecture, 3 hours Laboratory
Prerequisite: CS 11 or CS 12GP or CS 12J or equivalent skills; MATH 5A or
equivalent skills.
Recommended Preparation: CS 19 or CS 20J or equivalent skills; Eligibility for
ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Presents discrete mathematical systems including methods of proof
that shape the foundations of computer science. Includes propositional
logic, set and number theory, Boolean Algebra, deductive and inductive
proof, functions and relations, combinatorics, discrete probability, graph
theory and network models, and efficiency of algorithms. Math majors
should enroll in MATH 23 (identical to CS 23). Usually offered spring only
even years. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC.

CS 24   Elementary Computer Organization
4 units; 3 hours Lecture, 5 hours Laboratory
Prerequisite: CS 19 or CS 20J and MATH 5A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Introduces organization of computer systems, machine level program-
m ing and systems software. Includes processor organization, introduc-
tion to operating systems and assembly language programming on
microprocessors. Offered fall only. May be offered in a Distance-Learning
Format.
Transfer Credit: Transfers to CSU; UC. C-ID COMP 142

CONSTRUCTION AND ENERGY MANAGEMENT
Natural and Applied Sciences Division
Wanda Garner, Division Dean
Division Office, Room 701
Chuck Mornard, Program Chair, (831) 479-6235
Aptos Counselor: (831) 479-6274
Watsonville Counselor: (831) 786-4734
Call (831) 479-6328 for more information
http://www.cabrillo.edu/programs
Construction Management A.S. Degree

Program Description:

The Construction Management program provides education in the areas of Management, Codes and Standards, Building Performance and Efficiency, and Construction 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, consultants, 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 (Technology Tools) for all students enrolling in computer-based Construction Management courses. Please refer to the Cabrillo College Catalog descriptions of these courses to determine if you possess equivalent knowledge.

Program Student Learning Outcomes:

1. Plan, manage, and construct all phases of residential, commercial, heavy civil and industrial buildings.
2. Analyze and interpret building plans and drawings.
3. Demonstrate competency in communication, critical thinking and information competency, global awareness and personal and professional development.

A.S. General Education 21 Units

Core Courses (25 units)

CEM 151 Construction Fundamentals: Principles and Practices 3
CEM 151L Construction Fundamentals: Principles and Practices Lab 1
CEM 154 Construction Estimating 3
CEM 155 Blueprint Reading 3
CEM 157 Construction Law 3
CEM 159 Construction Planning and Scheduling 3
CEM 160 Construction Management 3
CEM 161 Construction Business and Related Topics 3
CEM 162 Sustainable Buildings, Home Performance, and the Environment 3

Approved Electives (9 Units)

CEM 162BS Building Science for Construction Technology 3
CEM 162HR Home Energy Rating System 1
CEM 162LD Green Building and LEED 3
CEM 162PS Passive Solar Design and Construction 2
CEM 162SP Solar Photovoltaic Design and Installation 3
CEM 162SS Building Efficiency Sales and Marketing 2
CEM 162ST Solar Thermal Design and Installation 3
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 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 170 Foundation Layout 3
CEM 175A Electric Code and Materials 1: Residential 3

CEM 175B Electric Code and Materials 2: Commercial 3
CEM 177 Fundamentals of Residential Framing 3
CEM 178A Residential Construction Skills 1: "Front End" 3
CEM 178B Residential Construction Skills 2: "Finish End" 3
CEM 199C Career Work Experience Education 1-3

May include three units from the following:

ETECH 24 Introduction to AutoCAD 3
ETECH 60 Architecture I 3
ETECH 61 Architecture II 3
ETECH 62 Architecture III 3
ETECH 75 BIM and Sustainable Design Strategies I 3

Electives:

(Any Course numbered 1-199) 5

Total Units 60

Construction Management Certificate of Achievement

Program Learning Outcomes:

1. Plan, manage, and construct all phases of residential, commercial, heavy civil and industrial buildings.
2. Analyze and interpret building plans and drawings.

Core Courses (25 units)

CEM 151 Construction Fundamentals: Principles and Practices 3
CEM 151L Construction Fundamentals: Principles and Practices Lab 1
CEM 154 Construction Estimating 3
CEM 155 Blueprint Reading 3
CEM 157 Construction Law 3
CEM 159 Construction Planning and Scheduling 3
CEM 160 Construction Management 3
CEM 161 Construction Business and Related Topics 3
CEM 162 Sustainable Buildings, Home Performance, and the Environment 3

Approved Electives (9 Units)

CEM 162BS Building Science for Construction Technology 3
CEM 162HR Home Energy Rating System 1
CEM 162LD Green Building and LEED 3
CEM 162PS Passive Solar Design and Construction 2
CEM 162SP Solar Photovoltaic Design and Installation 3
CEM 162SS Building Efficiency Sales and Marketing 2
CEM 162ST Solar Thermal Design and Installation 3
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 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 170 Foundation Layout 3
CEM 175A Electric Code and Materials 1: Residential 3
CEM 175B Electric Code and Materials 2: Commercial 3
Building Inspection and Construction Codes

A.S. Degree

Program Description:
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.

Program Student Learning Outcomes:
1. Inspect and analyze a building for compliance with current building standards and sustainability sciences.
2. Analyze and interpret building plans and drawings.
3. Demonstrate competency in communication, critical thinking and information competency, global awareness and personal and professional development.

A.S. General Education 21 Units

Core Courses (34 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 164R Building Fundamentals of the International Residential Code 3
CEM 165R Electrical, Mechanical, and Plumbing Fundamentals of IRC 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 Electric Code and Materials 1: Residential 3
CEM 175B Electric Code and Materials 2: Commercial 3

Total Units 37

Approved Electives (5 Units) Units
CEM 154 Construction Estimating 3
CEM 157 Construction Law 3
CEM 159 Construction Planning and Scheduling 3
CEM 160 Construction Management 3
CEM 161 Construction Business and Related Topics 3
CEM 163 Fundamentals of Renewable Energy Systems 3
CEM 170 Foundation Layout 3
CEM 177 Fundamentals of Residential Framing 3
CEM 199C Career Work Experience Education 1-3

Total Units 60

Building Inspection and Construction Codes Certificate of Achievement

Core Courses (34 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 164R Building Fundamentals of the International Residential Code 3
CEM 165R Electrical, Mechanical, and Plumbing Fundamentals of IRC 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 Electric Code and Materials 1: Residential 3
CEM 175B Electric Code and Materials 2: Commercial 3

Total Units 37
Basic Energy Management Skills Certificate

Program Learning Outcomes:
1. Analyze renewable alternative energy systems, techniques, and rating systems as they apply to building construction technology. (Global Awareness, Critical Thinking, Professional Development)
2. Investigate the various renewable energy technologies and their relationship with energy conservation, scarce resources and the environment. (Global Awareness, Critical Thinking, Professional Development)

Requirements

<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 162</td>
<td>Sustainable Buildings, Home Performance, and the Environment</td>
<td>3</td>
</tr>
<tr>
<td>CEM 162LD</td>
<td>Green Building and LEED</td>
<td>3</td>
</tr>
<tr>
<td>CEM 162BS</td>
<td>Building Science for Construction Technology</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units: 13

Building Performance Energy Management Skills Certificate

Program Learning Outcomes:
1. Analyze the theory of building science for construction technology. (Global Awareness, Critical Thinking, Professional Development)
2. Critically assess building science as it pertains to energy efficiency, comfort, and safety. (Global Awareness, Critical Thinking, Professional Development)
3. Compare and contrast the pre and post audit performance of buildings as measured by scientific equipment and how it applies and complies with energy standards and codes. (Global Awareness, Critical Thinking, Professional Development)

Required 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 162</td>
<td>Sustainable Buildings, Home Performance, and the Environment</td>
<td>3</td>
</tr>
<tr>
<td>CEM 162BS</td>
<td>Building Science for Construction Technology</td>
<td>3</td>
</tr>
<tr>
<td>CEM 162HR</td>
<td>Home Energy Rating System</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Units: 13

Construction Basics Skills Certificate

Program Learning Outcomes:
1. Demonstrate understanding of blueprints, basic estimating and sustainability sciences.

Required 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>3</td>
</tr>
<tr>
<td>CEM 155</td>
<td>Blueprint Reading</td>
<td>3</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>
</tbody>
</table>

Total Units: 13

Construction Business Management Skills Certificate

Program Learning Outcomes:
1. Manage a construction business utilizing techniques and methodologies of construction law, good business practices, management techniques and sustainability sciences.

Required Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEM 154</td>
<td>Construction Estimating</td>
<td>3</td>
</tr>
<tr>
<td>CEM 157</td>
<td>Construction Law</td>
<td>3</td>
</tr>
<tr>
<td>CEM 160</td>
<td>Construction Management</td>
<td>3</td>
</tr>
<tr>
<td>CEM 161</td>
<td>Construction Business and Related Topics</td>
<td>3</td>
</tr>
<tr>
<td>CEM 162</td>
<td>Sustainable Buildings, Home Performance, and the Environment</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units: 15

Construction Building Inspection and Codes Skills Certificate

Program Learning Outcomes:
1. Demonstrate understanding of the basic codes and building standards in residential and commercial structures.

Required 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 155</td>
<td>Blueprint Reading</td>
<td>3</td>
</tr>
<tr>
<td>CEM 162</td>
<td>Sustainable Buildings, Home Performance, and the Environment</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>
</tbody>
</table>

Total Units: 16
Construction Career Path Skills Certificate

Program Learning Outcomes:
1. Demonstrate understanding of the fundamentals, principles and practice of the construction industry and the paths that can be pursued in that profession.

Required Courses:
- 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 190A-Z Special Topics in Construction and Energy Management 0.5-5
- or
- CG 51 Introduction to College 1-3

Total Units 8

Construction Electrical Inspection and Codes Skills Certificate

Program Learning Outcomes:
1. Demonstrate understanding of the basic electrical codes and building standards in residential and commercial structures.

Required Courses:
- CEM 151 Construction Fundamentals: Principles and Practices 3
- CEM 151L Construction Fundamentals: Principles and Practices Lab 1
- CEM 155 Blueprint Reading 3
- CEM 165R Electrical, Mechanical, and Plumbing Fundamentals of IRC 3
- CEM 175A Electric Code and Materials 1: Residential 3
- CEM 175B Electric Code and Materials 2: Commercial 3

Total Units 16

Construction Project Management Skills Certificate

Program Learning Outcomes:
1. Manage construction projects utilizing techniques and methodologies of estimating, scheduling, construction management and sustainability sciences.

Required Courses:
- CEM 154 Construction Estimating 3
- CEM 155 Blueprint Reading 3
- CEM 159 Construction Planning and Scheduling 3
- CEM 160 Construction Management 3
- CEM 162 Sustainable Buildings, Home Performance, and the Environment 3

Total Units 15

Construction Specialty Inspection and Codes Skills Certificate

Program Learning Outcomes:
1. Demonstrate understanding of the basic plumbing, mechanical codes and building standards, and sustainability sciences in residential and commercial structures.

Required Courses:
- 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

Total Units 16

Construction Trade Skills Certificate

Program Learning Outcomes:
1. Utilize theories of construction to construct the basic aspects of residential construction (foundations, framing, plumbing, electrical and finish).

Required Courses:
- 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 Units 13

Solar Derived Energy Management Skills Certificate

Program Learning Outcomes:
1. Utilize theories of construction to construct the basic aspects of residential construction (foundations, framing, plumbing, electrical and finish).

Required Courses:
- CEM 151 Construction Fundamentals: Principles and Practices 3
- CEM 151L Construction Fundamentals: Principles and Practices Lab 1
- CEM 162PS Passive Solar Design and Construction 2
- CEM 162SP Solar Photovoltaic Design and Installation 3
- CEM 162ST Solar Thermal Design and Installation 3

Total Units 12
Construction and Energy Management Courses

CEM 151 Construction Fundamentals: Principles and Practices
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.
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 151CS Construction Occupational Safety
1 unit; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Introduces the basics of safety and health hazards recognition as they relate to the construction industry and the standards pertaining to that profession.

CEM 151L Construction Fundamentals: Principles and Practices Lab
1 unit; 3 hours Laboratory
Corequisite: CEM 151.
Recommended Preparation: Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.
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 151PP Personal Performance Management
1 unit; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Introduces the value of employee soft skills in the construction workplace through discussions, interaction, and evaluation of these traits for job placement, retention, and advancement.

CEM 154 Construction Estimating
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.
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 and cost indexes.

CEM 154A Estimating for Construction Professionals
1 unit; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.
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 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.
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 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.
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; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.
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 159A  Planning and Scheduling for Construction Professionals
1 unit; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.
Covers project planning and scheduling fundamentals including an overview of software applications applied to construction professions.

CEM 160  Construction Management
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.
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
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.
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 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.
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 162BS  Building Science for Construction Technology
3 units; 3 hours Lecture
Prerequisite: CEM 151 and CEM 151L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.
Introduces the building auditing and improvement process including energy efficiency, comfort, and safety in preparation for the Building Performance Institute (BPI) certification exam. All aspects of a building are examined: design, quality of workmanship and materials, installation procedures, proper operation practices, and the use of testing and monitoring equipment for cooling, heating, cooking, and ventilation systems. This is a fundamental course for the basic knowledge and application of the Home Energy Rating System (HERS) required in the State of California.

CEM 162BSP  Building Science (BPI) Practical Certification Preparation
1 unit; 1 hour Lecture
Prerequisite: Passed BPI Written Exam.
Recommended Preparation: Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.
Provides an opportunity to review for the Building Performance Institute practical exam(s) covering the testing of building safety, health, comfort, and efficiency. Designed for students who have passed the BPI written exam.
CEM 162EC  Energy Codes  
1 unit; 1 hour Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Introduces the relative California energy standards and requirements for building construction.

CEM 162EL  Electrical for Energy Technology  
1 unit; 1 hour Lecture  
Prerequisite: CEM 151 and CEM 151L.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.  
Repeatability: May be taken 1 time.  
Prepares students in electrical basics for energy and construction technology courses. Topics include Solar Photovoltaic, Solar Thermal, and Building Science, and will augment the basic knowledge relevant to residential and commercial wiring and the codes and standards that apply to those systems.

CEM 162HR  Home Energy Rating System  
1 unit; 1 hour Lecture  
Prerequisite: CEM 162BS.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Introduces the assessment process for compliance with adopted energy related standards and validates the energy efficiency of buildings through testing by scientific instruments.

CEM 162HV  Heating and Ventilation for Energy Technology  
1 unit; 1 hour Lecture  
Prerequisite: CEM 151 and CEM 151L.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.  
Repeatability: May be taken 1 time.  
Introduces heating, cooling, and ventilation systems comparing conventional systems with contemporary systems. Topics include safety, comfort, energy-efficiency influenced by the design, quality of workmanship, materials, installation procedures, proper operation practices, and the use of testing and monitoring equipment for validating performance.

CEM 162LD  Green Building and LEED  
3 units; 3 hours Lecture  
Prerequisite: CEM 151 and CEM 151L.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.  
Repeatability: May be taken 1 time.  
Introduces the US Green Building Council’s Leadership in Energy and Environmental Design (LEED) building rating system as well as professional credentialing as they relate to construction, operation, and maintenance. Includes the life cycle of buildings and provides the knowledge and skills necessary for the construction of sustainable structures. Prepares the student for the LEED Green Associate’s Exam administered by the Green Building Certification Institute (GBCI), a requirement for becoming a LEED Accredited Professional.

CEM 162MA  Math for Energy Technology  
1 unit; 1 hour Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Teaches the math skills necessary for energy technology courses which include Solar Photovoltaic, Solar Thermal, Passive Solar, and Building Science.

CEM 162PL  Plumbing for Energy Technology  
1 unit; 1 hour Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.  
Repeatability: May be taken 1 time.  
Prepares students in plumbing basics for energy and construction technology courses. Topics include Construction Fundamentals, Solar Thermal, and Building Science, and augments the basic knowledge relevant to residential and commercial plumbing, including the codes and standards that apply to those systems.

CEM 162PS  Passive Solar Design and Construction  
2 units; 2 hours Lecture  
Prerequisite: CEM 151 and CEM 151L.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.  
Repeatability: May be taken 1 time.  
Introduces passive solar design and construction principles for heating and cooling buildings. Topics include site evaluation, sustainable materials and methods, glazing, thermal mass, heating and cooling fundamentals, energy efficiency, air quality, health, and comfort.

CEM 162SC  Integrated Sustainability in Construction  
1 unit; 1 hour Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Introduces the concepts of integrated project planning, construction, and management as they relate to sustainability for building construction.

CEM 162SP  Solar Photovoltaic Design and Installation  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.  
Repeatability: May be taken 1 time.  
Introduces solar photovoltaic system requirements, design and configurations, installation techniques, and their application in residential and commercial construction. Entry-level Certification Exam from NABCEP is an option.
CEM 162SS  Building Efficiency Sales and Marketing
2 units; 2 hours Lecture
Prerequisite: CEM 151, CEM 151L, and CEM 162.
Recommended Preparation: Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.
Introduces sales and marketing as an integrated approach to building efficiency planning and implementation through the application of building science and solar derived alternatives. Designed for students who have already acquired an overall knowledge of sustainability and renewable energy principles and practices.

CEM 162ST  Solar Thermal Design and Installation
3 units; 3 hours Lecture
Prerequisite: CEM 151 and CEM 151L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.
Introduces solar thermal system requirements, design and configurations, installation techniques, operation, and their application in residential and commercial construction. National certification exam from NABCEP is an option.

CEM 163  Fundamentals of Renewable Energy Systems
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.
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 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.
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 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.
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 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.
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 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.
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 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.
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 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.
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 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.
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 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.
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 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.
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 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.
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 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.
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 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.
Introduces “finish end” construction: foundation layout, framing fundamentals, insulation, drywall, finish plumbing, finish HVAC, finish electrical, 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
0.5 - 5 units; 0.5 hour Lecture, 1.5 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.
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 Department
Margery Regalado Rodriguez: Dean, Educational Support Services Division
Division Office, Building 100
Jay Jackson, Counseling Director
(831) 479-6244
Aptos Counselor: (831) 479-6274
Watsonville Counselor: (831) 786-4734
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.
Repeatability: May be taken 1 time.
Integrates personal growth, learning techniques, problem solving, critical and creative thinking to enhance academic and career success. Topics include self evaluation and assessment, goal setting, career decision making, educational planning, time and financial management, instructor-student relationships, cultural diversity, health maintenance, stress management, campus resources, learning styles and strategies, note-taking, test-taking, memory and concentration. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC.
CG 51 Introduction to College
0.5 - 3 units; 0.5 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Explores college and university requirements, college services, educational alternatives, and strategies for student success.
Transfer Credit: Transfers to CSU.

CG 52 College Study Skills
0.5 - 3 units; 0.5 hour Lecture, 0.5 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Develops academic study skills including motivation, concentration, effective note-taking, textbook study methods, time management, test-taking, and test anxiety reduction. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

CG 54 Career Planning
1 - 3 units; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
A two-part class involving self-analysis through discussion and tests of aptitude, interest, values and personality; investigation of the world of work. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

CG 60A Introduction to Peer Counseling I
2 units; 2 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Presents techniques of effective peer counseling to assist a diverse student population.
Transfer Credit: Transfers to CSU.

CG 60B Introduction to Peer Counseling II
2 units; 2 hours Lecture
Prerequisite: CG 60A or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Further develops 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 and READ 100.
Repeatability: May be taken 1 time.
Addresses concepts of leadership in student government as well as private and public institutions. Requires the application of leadership skills in and out of class. Topics include: parliamentary procedure, the Brown Act, group leadership techniques, ethics, and conflict management.
Transfer Credit: Transfers to CSU.

CG 107 Career and Transfer Research Activities
0.5 - 3 units; 1.5 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.
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 170 Financial Literacy
1 unit; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Presents topics essential in the development of a spending plan including credit, debt, savings, and Financial Aid.

CG 190AZ Special Topics in Counseling and Guidance
0.5 - 5 units; 0.5 hour Lecture or 1.5 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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 class will be dependent on the subject matter. May be offered in a Distance Learning Format.
CG 205 Academic Survival Skills
1 unit; 1 hour Lecture
Repeatability: May be taken 1 time.
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
Hybrid Requisite: Completion of or concurrent enrollment in CG 205.
Repeatability: May be taken 1 time.
Assists student to develop academic skills in a supervised study environment by applying concepts and strategies presented in CG 205.

CG 212 Raising Self-Esteem
2 units; 2 hours Lecture
Recommended Preparation: Eligibility for Disabled Student Programs and Services.
Repeatability: May be taken 1 time.

CG 280AZ Special Topics in Developmental Studies
1 - 3 units; 1 hour Lecture or 2 hours Laboratory
Recommended Preparation: Eligibility for Disabled Student Programs and Services.
Repeatability: May be taken 1 time.
Presents selected topics in Developmental Studies 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 class will be dependent on the subject matter.

CG 286 Transition to College
2 units; 2 hours Lecture
Recommended Preparation: .
Repeatability: May be taken 1 time.
Addresses issues, concerns, and resources related to students with psychological disabilities as they affect career, vocational, academic and interpersonal situations occurring in a college environment.

CULINARY ARTS AND HOSPITALITY MANAGEMENT
Human Arts and Social Sciences Division
Isabel O’Connor, Division Dean
Division Office, Room 420
Eric Carter, Program Chair, (831) 477-5012
Aptos Counselor: (831) 479-6274
Watsonville Counselor: (831) 786-4734
Call (831) 479-6297 for more information
http://www.cabrillo.edu/programs

Program Description:
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 achievement in Culinary Arts (36 units). The skills certificates are stepping stones towards a certificate of achievement. When a student has completed 33 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 money at restaurants than they did at the supermarket
- Typically, restaurant owners start their careers 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.
### A.S. Degree: Culinary Arts and Hospitality Management

**Program Learning Outcomes:**

1. Demonstrate knowledge of fundamental cooking theory, food sanitation, menu design, management supervision, and food costing. Produce consistent quality restaurant lunch and dinner dishes, banquet meals, and bakery products in a timely fashion.

2. Productively work as a team member.

**A.S. General Education**

**21 Units**

**Core Course (33 units)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAHM 10</td>
<td>Introduction to Hospitality Management</td>
<td>3</td>
</tr>
<tr>
<td>CAHM 50A</td>
<td>Introduction to Culinary Arts Basics</td>
<td>1</td>
</tr>
<tr>
<td>CAHM 50B</td>
<td>Introduction to Entree 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 60</td>
<td>Purchasing and Food Cost Control</td>
<td>2</td>
</tr>
<tr>
<td>CAHM 63</td>
<td>Food Service Management</td>
<td>2</td>
</tr>
<tr>
<td>CAHM 64</td>
<td>Sanitation and Hygiene</td>
<td>2</td>
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<tr>
<td>CAHM 151B</td>
<td>Advanced Culinary Arts</td>
<td>9</td>
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<tr>
<td>CAHM 155</td>
<td>Basic Baking and Pastry</td>
<td>3</td>
</tr>
<tr>
<td>CAHM 157L</td>
<td>Catering and Beverage Operation Lab</td>
<td>3</td>
</tr>
<tr>
<td>CAHM 199C</td>
<td>Career Work Experience Education</td>
<td>2</td>
</tr>
</tbody>
</table>

**Approved Electives (6 Units)**

<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>
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<tr>
<td>CAHM 159</td>
<td>Chocolate</td>
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<tr>
<td>CAHM 165</td>
<td>Meat Cutting and Sausage Making</td>
<td>2</td>
</tr>
<tr>
<td>CAHM 166</td>
<td>Bread Making</td>
<td>1-2</td>
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<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 172A</td>
<td>Wine and Wine Service</td>
<td>2</td>
</tr>
<tr>
<td>CAHM 172B</td>
<td>Sensory Evaluation of Wine Varietals</td>
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<tr>
<td>CAHM 174</td>
<td>World Wines</td>
<td>1-2</td>
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<tr>
<td>CAHM 175</td>
<td>History and Practice of Sauces</td>
<td>1-2</td>
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<tr>
<td>CAHM 176</td>
<td>Basic Winemaking</td>
<td>2</td>
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<tr>
<td>CAHM 177</td>
<td>Basic Wine Grape Viticulture</td>
<td>2</td>
</tr>
<tr>
<td>CAHM 178</td>
<td>Wine Marketing and Sales</td>
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<tr>
<td>CAHM 179</td>
<td>Wines of California</td>
<td>3</td>
</tr>
<tr>
<td>CAHM 199C</td>
<td>Career Work Experience Education</td>
<td>1-4</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>MATH 154</td>
<td>** Elementary Algebra</td>
<td>5</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.

**Total Units**: 60

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### Culinary Arts and Hospitality Management Certificate of Achievement

**Program Learning Outcomes:**

1. Demonstrate knowledge of fundamental cooking theory, food sanitation, menu design, management supervision, and food costing. Produce consistent quality restaurant lunch and dinner dishes, banquet meals, and bakery products in a timely fashion.

2. Productively work as a team member.

**Core Course (33 units)**

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<tr>
<td>CAHM 64</td>
<td>Sanitation and Hygiene</td>
<td>2</td>
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<tr>
<td>CAHM 151B</td>
<td>Advanced Culinary Arts</td>
<td>9</td>
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<tr>
<td>CAHM 155</td>
<td>Basic Baking and Pastry</td>
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<tr>
<td>CAHM 157L</td>
<td>Catering and Beverage Operation Lab</td>
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<tr>
<td>CAHM 199C</td>
<td>Career Work Experience Education</td>
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**Other Required Courses:**

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<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<td>ENGL 100</td>
<td>Elements of Writing</td>
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<tr>
<td>ENGL 1A/1AH/1AMC/1AMCH</td>
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<tr>
<td>CABT 157</td>
<td>Business and Technical Writing</td>
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**Total Units**: 36
Culinary Arts–Entry Level Catering Skills Certificate

Program Learning Outcomes:
1. Demonstrate knowledge of fundamental cooking theory, food sanitation, menu design, and food costing.
2. Produce consistent bakery products in a timely fashion.
3. Perform basic cake decorating techniques.
4. Productively work as a team member.

Required Courses:
- CAHM 50A Introduction to Culinary Arts Basics . . . . . . . . . . . . . 1
- CAHM 50B Introduction to Entree Preparation and Service . . . . 1
- CAHM 50C Introduction to Appetizers and Baking Preparation . . 1
- CAHM 50L Introduction to Culinary Arts Lab . . . . . . . . . . . . . 2
- CAHM 57 Catering and Beverage Operations . . . . . . . . . . . . . 2
- CAHM 64 Sanitation and Hygiene . . . . . . . . . . . . . . . . . . . . . . . 2
- CAHM 153 Garde Manager . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2
- CAHM 157L Catering and Beverage Operation Lab . . . . . . . . . . . . 5

Total Units 16

Culinary Arts–Entry Level Cook Skills Certificate

Required Courses

Program Learning Outcomes:
1. Demonstrate knowledge of fundamental cooking theory, food sanitation, menu design, and food costing.
2. Produce consistent bakery products in a timely fashion.
3. Perform basic cake decorating techniques.
4. Productively work as a team member.

Required Courses:
- CAHM 50A Introduction to Culinary Arts Basics . . . . . . . . . . . . . 1
- CAHM 50B Introduction to Entree Preparation and Service . . . . 1
- CAHM 50C Introduction to Appetizers and Baking Preparation . . 1
- CAHM 50L Introduction to Culinary Arts Lab . . . . . . . . . . . . . 2
- CAHM 64 Sanitation and Hygiene . . . . . . . . . . . . . . . . . . . . . . . 2
- CAHM 151B Advanced Culinary Arts . . . . . . . . . . . . . . . . . . . . . . 9

Total Units 16

Entry Level Baking Skills Certificate

Program Learning Outcomes:
1. Demonstrate knowledge of fundamental cooking theory, food sanitation, menu design, and food costing.
2. Produce consistent bakery products in a timely fashion.
3. Perform basic cake decorating techniques.
4. Productively work as a team member.

Required Courses:
- CAHM 50A Introduction to Culinary Arts Basics . . . . . . . . . . . . . 1
- CAHM 50B Introduction to Entree Preparation and Service . . . . 1
- CAHM 50C Introduction to Appetizers and Baking Preparation . . 1
- CAHM 50L Introduction to Culinary Arts Lab . . . . . . . . . . . . . 2
- CAHM 64 Sanitation and Hygiene . . . . . . . . . . . . . . . . . . . . . . . 2
- CAHM 149 Cake Decorating . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1
- CAHM 155 Basic Baking and Pastry . . . . . . . . . . . . . . . . . . . . . . . 3
- CAHM 159 Chocolate . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1
- CAHM 168 Advanced Baking and Pastry . . . . . . . . . . . . . . . . . . . . 3
- CAHM 171 The Art of Creating Wedding Cakes . . . . . . . . . . . . . 1

Total Units 16

Culinary Arts, Hospitality Management Courses

CAHM 10 Introduction to Hospitality Management
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Introduces the hospitality industry on a global scale: travel and tourism, lodging, foodservice, meetings, conventions and expositions, leisure and recreation. Marketing, human resources, leadership, and management are discussed in the context of hospitality management. Focus on orientation to customer service, industry trends and career opportunities.
Transfer Credit: Transfers to CSU.

CAHM 20 Nutrition
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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; UC.

CAHM 50A Introduction to Culinary Arts Basics
1 unit; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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.
Repeatability: May be taken 1 time.
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.
Repeatability: May be taken 1 time.
Introduces the principles of baking breads, cakes, custards, pies; preparation of fruits, vegetables, starchy; 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  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Hybrid Requisite: Completion of or concurrent enrollment in CAHM 50A and CAHM 50B and CAHM 50C.  
Repeatability: May be taken 1 time.  
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.  
Repeatability: May be taken 1 time.  
Examines menu planning, costing, beverage management, public relations, hospitality service, and business strategies involved in catering.  
Transfer Credit: Transfers to CSU.

CAHM 60  Purchasing and Food Cost Control  
2 - 3 units; 2 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
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.  
Transfer Credit: Transfers to CSU.

CAHM 63  Food Service Management  
2 units; 2 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Examines the theoretical and practical approaches to supervision and management for the prospective foodservice manager.  
Transfer Credit: Transfers to CSU.

CAHM 64  Sanitation and Hygiene  
2 units; 2 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
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 121  Trends and Issues in the Food Industries  
2 units; 2 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Presents weekly lecturers offering their perspectives on key trends and issues in a broad range of food-related industries. Topics may include food growing, processing, and distribution; food science, testing, regulation, and safety; retail food businesses; food-related publishing and media productions.

CAHM 131  Champagne and French Sparkling Wine  
1 unit; 1 hour Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Explores champagne and sparkling wine from France, including history, viniculture, viticulture, wine styles, regional, and terroir influences. Must be at least 21 years old to enroll. Materials fees apply.

CAHM 132  Spanish Wines  
1 unit; 1 hour Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Presents a detailed examination of Spanish wines through lectures and tastings, including grape varietals, viniculture, wine laws and sensory evaluation. Must be at least 21 years old to enroll. Materials fees apply.

CAHM 133  Wine Faults  
1 unit; 1 hour Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Explores common faults and problems found in wine through sensory evaluation and discussion, including causes for occurrence. Must be at least 21 years old to enroll. Materials fees apply.

CAHM 149  Cake Decorating  
1 unit; 0.5 hour Lecture, 1.5 hours Laboratory  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Introduces cake decorating techniques including filling and icing cakes, pastry bag work in borders, Australian lace, string work, writing, and flowers. Materials fees apply.

CAHM 151B  Advanced Culinary Arts  
9 units; 3 hours Lecture, 18 hours Laboratory  
Prerequisite: CAHM 50A and CAHM 50B and CAHM 50C and CAHM 50L or equivalent experience.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Provides opportunities to create and plan menus, research and develop prep formulas, and explore a la carte, ethnic food, garde manger, and specialty baking.

CAHM 153  Garde Manger  
2 units; 1 hour Lecture, 3 hours Laboratory  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Teaches the art of cold food presentation, production of pates, galantines, and mousselines with emphasis on buffets and platters. Pays special attention to color, texture, and balance of food. Materials fees apply.

CAHM 155  Basic Baking and Pastry  
3 units; 2 hours Lecture, 3 hours Laboratory  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Introduces equipment, skills, and procedures in commercial bakeries, including hands-on production of pastries and specialty items. Materials fees apply.
CAHM 156AZ Special Topics in Culinary Arts and Hospitality Management
0.5 - 3 units; 0.5 hour Lecture or 1.5 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Offers a series of courses designed to investigate special areas of interest in culinary arts, including service, food production, computer use and culinary specialities. Course content will vary with each offering as will prerequisites.

CAHM 157L Catering and Beverage Operation Lab
2.5 - 5 units; 7.5 hours Laboratory
Prerequisite: CAHM 50L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Provides practical application of catering techniques including menu planning, costing, hospitality service, and buffet presentation.

CAHM 159 Chocolate
1 unit; 0.5 hour Lecture, 1.5 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Studies the history and manufacturing of chocolate as well as the practical uses and techniques in working with dark, white, and milk chocolate. Materials fees apply.

CAHM 159AC Artisan Confections
2 units; 1 hour Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Introduces confectionery formulas, theory, and techniques including chocolate work, noncrystalline sugar, crystalline sugar, jellies, and aerated confections. Materials fees apply.

CAHM 165 Meat Cutting and Sausage Making
2 units; 1 hour Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Studies meat and fish butchering in the food service industry, emphasizing meat grading, commercial and retail meat identification and structure, techniques of boning beef, lamb, pork, chicken, and fish; demonstrations of cooking methods including smoking and sausage making. Materials fees apply.

CAHM 166 Bread Making
1 - 2 units; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Studies bread making techniques for preparing yeasted breads, sweet doughs, and specialty items such as sourdough and laminated doughs. Materials fees apply.

CAHM 167 Cultural and Ethnic Foods
2 units; 1 hour Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Introduces a variety of ethnic foods which could include Middle Eastern, African, European, or Southeast Asian, emphasizing how to prepare and incorporate ethnic foods into a restaurant setting. May focus on specific cuisine areas. Materials fees apply.

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.
Repeatability: May be taken 1 time.
Examines advanced application of principles and practical techniques of yeast doughs, puff pastry, cookies, tarts, cakes, tortes, frozen desserts, plate presentation, and cake decorating. Materials fees apply.

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 1 time.
Introduces hands-on commercial baking by focusing on quantity production baking and production of yeast and yeast breads, cookies, and muffins. Materials fees apply.

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 1 time.
Presents an intermediate hands-on course in commercial baking emphasizing quantity and practical application in the production of cakes, pastries, and enriched doughs. Materials fees apply.

CAHM 171 The Art of Creating Wedding Cakes
1 unit; 0.5 hour Lecture, 1.5 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Explores the creation of wedding cakes including principles of mixing, baking, filling, frosting, and decorating. Materials fees apply.

CAHM 172A Wine and Wine Service
2 units; 2 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Provides an overview of basic wine concepts including wine history, viniculture, tasting procedures, food pairing, wine menus, marketing, purchasing, and table service. Must be at least 21 years old to enroll. Materials fees apply.
CAHM 172B Sensory Evaluation of Wine Varietals
1 unit; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Provides a comparative sensory evaluation of wine varietals, focusing on the terroir effect on various wines. Must be at least 21 years of age to enroll. Materials fees apply.

CAHM 174 World Wines
1 - 2 units; 1 hour Lecture
Prerequisite: CAHM 172.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Explores world wines in depth, focusing on differences in viniculture, wine laws, and grape varietals 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. Materials fees apply.

CAHM 175 History and Practice of Sauces
1 - 2 units; 0.5 hour Lecture, 1.5 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Prepares the history and techniques of sauce making around the world. Materials fees apply.

CAHM 176 Basic Winemaking
2 units; 2 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Introduces the science of wine making, including viticulture, production, harvest, cellar practices, fermentation, aging, blending, and bottling. Materials fees apply.

CAHM 177 Basic Wine Grape Viticulture
2 units; 2 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Explores wine grape growing practices including history, vine and grape types, vine life cycle, vineyard management, pests, and diseases. Materials fees apply.

CAHM 178 Wine Marketing and Sales
1 unit; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Introduces wine marketing and sales methods including packaging, promotion, and getting the product to the consumer. Materials fees apply.

CAHM 179 Wines of California
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Introduces wines of California, including history, viticultural practices, wine making styles, and sensory evaluation of representative wines from specific important regions. Must be at least 21 years of age to enroll. Materials fees apply.

Dance
Visual, Applied, and Performing Arts Division
John Grauity, Division Dean
Division Office, Room VAPA1007
Regina DeCosse, Program Co-Chair, (831) 479-6591
David King, Program Co-Chair, (831) 479-5027
Aptos Counselor: (831) 479-6274
Watsonville Counselor: (831) 786-4734
Call (831) 479-6464 for more information
http://www.cabrillo.edu/programs
Dance A.A. Degree
Program Description:
Dance as an academic discipline focuses on dance as a performing art, as well as its social functions in other areas, including education, health, cultural studies, art, history, and the science of human movement. Dance at Cabrillo is dedicated to fostering development of the ‘whole’ dancer, nurturing the mind, body, and spirit together. Bachelor’s and graduate degrees in Dance and related fields provide multiple career opportunities in the public and private sectors. Many four-year colleges and universities offer emphases in areas such as dance performance, modern dance, ballet, choreography, musical theater, dance education, dance therapy, somatics, dance ethnology, dance history, and criticism. Specialties are also offered in arts administration, physical therapy for dancers, dance for children, seniors, and special education. The full course of study includes pre-professional training in dance techniques, performance, choreography, dances of the world, and somatic education.
Model Program for Dance
An Associate Degree requires 60 units appropriate to your educational goal, to include general education and at least 20 units in a major. Courses should be selected to meet the lower-division major preparation requirements at your intended transfer university—these specific course requirements can be found at www.assist.org for 4-year public institutions in California. Please see a counselor for advisement to ensure you are taking the best possible courses given your goal. The department presents the following suggested model program for this major. The courses listed below may or may not be appropriate depending on your goal. Please see a counselor for advisement for transfer to any 4-year institution.
A.A. General Education
Core Technical Sequence (6 Units)
Take at least one course in each of the following:

Contemporary Modern Dance, Jazz Dance, and Ballet

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
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<tbody>
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<td>DANCE 2A</td>
<td>Introduction to Dance I</td>
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<tr>
<td>DANCE 2B</td>
<td>Introduction to Dance II</td>
<td>0.5-3</td>
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<td>DANCE 4</td>
<td>Contemporary Modern Dance I</td>
<td>0.5-3</td>
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<td>DANCE 5</td>
<td>Contemporary Modern Dance II</td>
<td>0.5-3</td>
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<td>DANCE 9A</td>
<td>Beginning Jazz Dance I</td>
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<td>DANCE 9B</td>
<td>Beginning Jazz Dance II</td>
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<td>DANCE 7</td>
<td>Ballet I</td>
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<td>DANCE 8</td>
<td>Ballet II</td>
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<td>DANCE 68</td>
<td>Advanced Dance Technique and Performance Skills</td>
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<td><strong>DANCE 1  Dance Appreciation</strong></td>
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<td>3 units; 3 hours Lecture</td>
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<td>Recommended Preparation: Eligibility for ENGL 100 and READ 100.</td>
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<td>Repeatability: May be taken 1 time.</td>
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<tr>
<td>Examines 20th Century dance in multiple cultural, artistic, historical and performance contexts, using lectures, video, demonstration, viewing live performances and exploration of selected dance styles.</td>
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<td><strong>Transfer Credit:</strong> Transfers to CSU; UC.</td>
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| **DANCE 2A  Introduction to Dance I** |
| 0.5 - 3 units; 0.5 hour Lecture, 1 hour Laboratory |
| Prerequisite: DANCE 2A or equivalent skills. |
| Recommended Preparation: Eligibility for ENGL 100 and READ 100. |
| Repeatability: May be taken 1 time. |
| Introduces a survey of basic dance techniques and dance vocabulary for the student with little or no experience, while promoting ease and confidence in movement. |
| **Transfer Credit:** Transfers to CSU; UC, pending review. |

| **DANCE 2B  Introduction to Dance II** |
| 0.5 - 3 units; 0.5 hour Lecture, 1 hour Laboratory |
| Prerequisite: DANCE 2A or equivalent skills. |
| Recommended Preparation: Eligibility for ENGL 100 and READ 100. |
| Repeatability: May be taken 1 time. |
| Continues the introduction of a survey of dance techniques and dance vocabularies from DANCE 2A, adding elements of expressivity and differentiating styles in the techniques studied. |
| **Transfer Credit:** Transfers to CSU; UC, pending review. |

| **DANCE 3  Dance Conditioning/Pilates** |
| 0.5 - 3 units; 0.5 hour Lecture, 1 hour Laboratory |
| Recommended Preparation: Eligibility for ENGL 100 and READ 100. |
| Repeatability: May be taken 1 time. |
| Provides applied instruction in elements of conditioning and introduces Pilates mat work with an emphasis on body/mind awareness, increased strength, flexibility, and efficient movement function leading to higher level performance in all dance techniques and movement skills. |
| **Transfer Credit:** Transfers to CSU/UC, with limits: Any or all KIN activity courses: maximum credit-4 units. Dance 3 is a KIN Activity course. |

| **DANCE 4  Contemporary Modern Dance I** |
| 0.5 - 3 units; 0.5 hour Lecture, 1 hour Laboratory |
| Recommended Preparation: DANCE 2A; Eligibility for ENGL 100 and READ 100. |
| Repeatability: May be taken a total of 4 times. |
| Introduces the foundations of current physical and expressive beginning dance techniques by focusing on basic skills, musicality, and the art of dance. Improves kinesthetic abilities, engage the imagination, and build flexibility, strength and alignment. |
| **Transfer Credit:** Transfers to CSU; UC. |
DANCE 5  Contemporary Modern Dance II
0.5 - 3 units; 0.5 hour Lecture, 1 hour Laboratory
Recommended Preparation: DANCE 4; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken a total of 4 times.
Teaches intermediate 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; UC.

DANCE 7  Ballet I
0.5 - 3 units; 0.5 hour Lecture, 1 hour Laboratory
Recommended Preparation: DANCE 2A; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken a total of 4 times.
Introduces basic techniques and principles of ballet through barre, center floor work and across-the-floor combinations while acquainting the student with the aesthetics, history and tradition of classical ballet.
Transfer Credit: Transfers to CSU; UC.

DANCE 8  Ballet II
0.5 - 3 units; 0.5 hour Lecture, 1 hour Laboratory
Recommended Preparation: DANCE 7; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken a total of 4 times.
Presents intermediate level techniques and principles of ballet 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; UC.

DANCE 9A  Beginning Jazz Dance I
0.5 - 3 units; 0.5 hour Lecture, 1 hour Laboratory
Recommended Preparation: DANCE 2A; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Introduces beginning level Jazz Dance techniques, warm-up, and conditioning exercises for the student who has little or no prior experience.
Transfer Credit: Transfers to CSU; UC, pending review.

DANCE 9B  Beginning Jazz Dance II
0.5 - 3 units; 0.5 hour Lecture, 1 hour Laboratory
Prerequisite: DANCE 9A or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Continues the exploration of Jazz Dance techniques from DANCE 9A adding aspects of musicality, performance, and stylistic nuance.
Transfer Credit: Transfers to CSU; UC, pending review.

DANCE 10A  Intermediate Jazz Dance I
0.5 - 3 units; 0.5 hour Lecture, 1 hour Laboratory
Prerequisite: DANCE 9B or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Introduces intermediate level Jazz Dance techniques and performance skills, with emphasis placed on improvisational skills, stylistic interpretation, and "the cool" in the context of 20th century Jazz Dance history.
Transfer Credit: Transfers to CSU; UC, pending review.

DANCE 10B  Intermediate Jazz Dance II
0.5 - 3 units; 0.5 hour Lecture, 1 hour Laboratory
Prerequisite: DANCE 10A or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Continues the physical study of historic Jazz Dance techniques and styles from DANCE 10A with emphasis placed on accuracy of reproduction and individual stylistic interpretation.
Transfer Credit: Transfers to CSU; UC, pending review.

DANCE 11A  Dance Improvisation I
0.5 - 3 units; 0.5 hour Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Introduces the skills of creative movement and basic tools of dance improvisation through personal and group exploration in order to access and develop imagination.
Transfer Credit: Transfers to CSU; UC, pending review.

DANCE 11B  Dance Improvisation II
0.5 - 3 units; 0.5 hour Lecture, 1 hour Laboratory
Prerequisite: DANCE 11A or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Continues the study of improvisational skills and techniques from DANCE 11A while introducing aspects of performance and group synergy to find relationships between imagination, movement, and dancesmaking.
Transfer Credit: Transfers to CSU; UC, pending review.

DANCE 12A  Choreography I
0.5 - 3 units; 0.5 hour Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Introduces the art of making dances for choreographers working in any style of dance, and is open to students with little or no dance experience. Creates a supportive Lecture, laboratory environment to explore the use of music, group dynamics and the creative imaginations as tools to create dances.
Transfer Credit: Transfers to CSU; UC, pending review.

DANCE 12B  Choreography II
0.5 - 3 units; 0.5 hour Lecture, 1 hour Laboratory
Prerequisite: DANCE 12A or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Continues the study of improvisational skills and techniques from DANCE 12A while introducing aspects of performance and group synergy to find relationships between imagination, movement, and dancesmaking.
Transfer Credit: Transfers to CSU; UC, pending review.
DANCE 12B  Choreography II  
0.5 - 3 units; 0.5 hour Lecture, 1 hour Laboratory  
Prerequisite: DANCE 12A or equivalent skills.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Continues the study of crafting dances from DANCE 12A, while expanding the use of formal structures and more complex content, to develop dances that reflect the creative vision of the dancemaker.  
Transfer Credit: Transfers to CSU; UC, pending review.

DANCE 13  Dance Repertory  
0.5 - 4 units; 0.5 hour Lecture, 1 hour Laboratory  
Recommended Preparation: DANCE 2A; Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken a total of 4 times.  
Presents the rehearsal processes, choreography, and performance styles of faculty and guest artists while performing in a fully produced dance concert.  
Transfer Credit: Transfers to CSU; UC.

DANCE 14A  Dance Production  
0.5 - 4 units; 0.5 hour Lecture, 1 hour Laboratory  
Recommended Preparation: DANCE 2A; Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken a total of 4 times.  
Choreograph, perform, and collaborate in the creation of dances that are presented in a concert focused on the work of emerging student dance artists. Presents opportunity to produce choreography performances and collaborations.  
Transfer Credit: Transfers to CSU; UC.

DANCE 15A  Salsa Dance I  
0.5 - 3 units; 0.5 hour Lecture, 1 hour Laboratory  
Recommended Preparation: DANCE 2A; Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Introduces the Salsa Dance genre and its social importance for the student with little or no experience in the form.  
Transfer Credit: Transfers to CSU; UC, pending review.

DANCE 15B  Salsa Dance II  
0.5 - 3 units; 0.5 hour Lecture, 1 hour Laboratory  
Prerequisite: DANCE 15A or equivalent skills.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Continues the study of physical and expressive techniques from DANCE 15A with emphasis placed on performing more complex Salsa Dance figures.  
Transfer Credit: Transfers to CSU; UC, pending review.

DANCE 16A  Baile Folklórico: Regional Dances of Mexico I  
0.5 - 3 units; 0.5 hour Lecture, 1 hour Laboratory  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Introduces the fundamentals of Mexican Folklorico Dance techniques, sones jaroches, jalisciences, huastecos y sinaloenses, to students with little or no experience in this form. Footwork, style and beginning choreography will be addressed.  
Transfer Credit: Transfers to CSU; UC, pending review.

DANCE 16B  Baile Folklórico: Regional Dances of Mexico II  
0.5 - 3 units; 0.5 hour Lecture, 1 hour Laboratory  
Prerequisite: DANCE 16A or equivalent skills.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Continues the study of Mexican Folklorico Dance from DANCE 16A, introducing the indigenous and mestizo dances of Mexico, with a focus on dance as a performing art.  
Transfer Credit: Transfers to CSU; UC, pending review.

DANCE 17A  Latin Dance I  
0.5 - 3 units; 0.5 hour Lecture, 1 hour Laboratory  
Recommended Preparation: DANCE 2A; Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Introduces the fundamentals of Latin Dance techniques, merengue, salsa, cha cha, and bachata, to students with little or no experience in the form. Leading and following roles will be developed, including aspects of figures and floorcraft.  
Transfer Credit: Transfers to CSU; UC, pending review.

DANCE 17B  Latin Dance II  
0.5 - 3 units; 0.5 hour Lecture, 1 hour Laboratory  
Prerequisite: DANCE 17A or equivalent skills.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Continues the study of Latin Dance from DANCE 17A, introducing the Rumba and Samba, and beginning the focus on Latin forms for performance and competition.  
Transfer Credit: Transfers to CSU; UC, pending review.

DANCE 17C  Latin Dance III  
0.5 - 3 units; 0.5 hour Lecture, 1 hour Laboratory  
Prerequisite: DANCE 17B or equivalent skills.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Continues the study of Latin Dance from DANCE 17B, introducing the Mambo and Cumbia forms with focus skill building for competition and advanced level performance.  
Transfer Credit: Transfers to CSU; UC, pending review.
DANCE 18A African Dance I
0.5 - 3 units; 0.5 hour Lecture, 1 hour Laboratory
Recommended Preparation: DANCE 2A; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Introduces African dances from various regions in Africa including their social, historical and cultural significance.
Transfer Credit: Transfers to CSU; UC.

DANCE 19A Hip Hop Dance I
0.5 - 3 units; 0.5 hour Lecture, 1 hour Laboratory
Recommended Preparation: DANCE 2A; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Introduces the foundation of current physical and expressive Hip Hop Dance techniques to the student with little or no experience in the form by focusing on basic skills, musicality and the different Hip Hop Dance genres. Improves kinesthetic abilities, engages the imagination and builds flexibility, strength and alignment.
Transfer Credit: Transfers to CSU; UC, pending review.

DANCE 19B Hip Hop Dance II
0.5 - 3 units; 0.5 hour Lecture, 1 hour Laboratory
Prerequisite: DANCE 19A or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Continues the exploration of foundational techniques in Hip Hop Dance from DANCE 19A with increasing emphasis on the use of correct form and safe performance for personal expression.
Transfer Credit: Transfers to CSU; UC, pending review.

DANCE 19C Hip Hop Dance III
0.5 - 3 units; 0.5 hour Lecture, 1 hour Laboratory
Prerequisite: DANCE 19B or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Continues the study of Hip Hop Dance techniques from DANCE 19B synthesizing Hip Hop Dance techniques with personal expression and musicality, encouraging the student to find a personal connection to the dance form.
Transfer Credit: Transfers to CSU; UC, pending review.

DANCE 53 Dance Repertory
0.5 - 3 units; 0.5 hour Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken a total of 4 times.
Studies the rehearsal, choreography, and performance processes with faculty and guest choreographers.
Transfer Credit: Transfers to CSU.

DANCE 68 Advanced Dance Technique and Performance Skills
0.5 - 3 units; 0.5 hour Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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; UC.

DANCE 72 World Dance Techniques
0.5 - 3 units; 0.5 hour Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Studies dance and movement techniques from one to two of the following traditional or theatrical forms: African, Latin American, Salsa, or Hip Hop Dance.
Transfer Credit: Transfers to CSU; UC.

DANCE 74 Creative Movement
0.5 - 3 units; 0.5 hour Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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; UC.

DANCE 79AZ Special Topics in Dance
0.5 - 3 units; 0.5 hour Lecture or 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Study of selected dance topics of interest.
Transfer Credit: Transfers to CSU; 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 81 Swing Dance
0.5 - 3 units; 0.5 hour Lecture, 1 hour Laboratory
Recommended Preparation: DANCE 61; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Builds understanding of swing dance and expands the students’ repertoir of dance skills across a wide range of traditional and popular swing dance styles.
Transfer Credit: Transfers to CSU; UC.
DANCE 82  Applied Somatics: Body Mind Techniques
0.5 - 3 units; 0.5 hour Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Provides students of any experience level an introductory survey of somatic modalities, increasing body awareness and wellness through an exploration of movement and dance as a creative, performance, and healing art.
Transfer Credit: Transfers to CSU; UC.

DANCE 86  Ballroom Dance
0.5 - 3 units; 0.5 hour Lecture, 1 hour Laboratory
Recommended Preparation: DANCE 61; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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; UC.

DANCE 92  Cabrillo Dance Company
0.5 - 3 units; 0.5 hour Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken a total of 4 times.
Provides concert and informal performing and touring experience focusing on dance repertory, production of choreographic works, lecture demonstrations, presentation of master classes and workshops. May include participation in major productions.
Transfer Credit: Transfers to CSU; UC.

DENTAL HYGIENE
Health, Athletics, Wellness, and Kinesiology Division
Ian Haslam, Division Dean
Division Office, Room 1102
Bridgete Clark, D.D.S., Program Chair, (831) 479-6471
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 786-4734
Call (831) 479-6471 for more information
http://www.cabrillo.edu/programs

Dental Hygiene A.S. Degree
Program Description:
The dental hygiene program at Cabrillo College, affiliated with the University of the Pacific, Arthur A. Dugoni School of Dentistry, San Francisco. Upon completion of the 2-year program, students are eligible to take the state and national licensing examinations. Program retention is based on a minimum grade of "C" in all courses in the published dental hygiene curriculum. Courses must be taken sequentially. A dental hygienist is a person who is trained and licensed to provide dental hygiene therapy, exposes dental x-rays, and provides services, usually under the supervision of a dentist. The dental hygiene profession demands a high level of ethics, professionalism, critical thinking and manual dexterity. It is strongly suggested that students meet with an academic counselor to review coursework before applying to the Dental Hygiene Program.

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 on the website (www.cabrillo.edu/academics/dentalhygiene).
General college application materials are available on line at (www.cabrillo.edu) or in the Admissions & Records Office, Enrollment Services Center, in Building 100, (831) 479-6201.

Process of Application
Read all material in the application packet and the appropriate sections of the Cabrillo College Catalog about the associate degree for Dental Hygiene Program, academic regulations, attendance and graduation requirements. Return the completed dental hygiene application forms by U.S. Postal Service Certified Mail and Return Receipt to the Dental Hygiene Program. See DH Program How to Apply Page at online

A completed application includes:
1. Dental Hygiene application form,
2. Physical and Non Physical Standards form,
3. Transcripts documenting ALL completed college coursework
   • Cabrillo College courses only: Print two (2) WebAdvisor unofficial transcripts.
   • ALL other colleges/universities attended: Two (2) sealed official transcripts.
Acceptance is based on:
1. Completed application as outlined above,
2. Receipt of complete application U.S. Postal Service certified mail and Return Receipt requested,
3. Completion of all science prerequisites with a GPA of 2.70 or better,
4. Completion of English prerequisite with a GPA of 2.00 or better.

Health Screening and Clinical Compliance Requirements
To comply with state and local regulations for health care providers, students enrolled in the Cabrillo College Dental Hygiene Program are required to meet health screening and clinical compliance according to program guidelines, including vaccination and drug testing requirements and provide documentation thereof. Students are also required to complete criminal background checks and drug screening, and may be denied access to clinical facilities based on the results.
Prerequisites*  Units
BIO 4  Human Anatomy  4
BIO 5  Human Physiology  4
BIO 6  Microbiology  4
CHEM 30B Introductory Organic Chemistry and Biochemistry for Health Occupations  4
ENGL 1A/1AH/1AMC/1AMCH  3

*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. MATH 154, or equivalent is a prerequisite for CHEM 30A; CHEM 30A is a prerequisite for CHEM 30B*, BIO 5 and BIO 6.

If you have passed a prerequisite course with an A, B, or C, your GPA will not improve with repetition of that class.

Program Learning Outcomes:
1. Apply ethical, professional, and legal concepts to the provision and/or support of oral health care services to all persons.
2. Promote dental health and disease prevention both at chairside and at the community level.

Core Courses  Units
DH 7  Head and Neck Anatomy and Embryology  2
DH 160  Oral Health Education  2
DH 161  Preparation for Dental Hygiene Clinic  0.5
DH 162A  Patient Assessment I  3
DH 162B  Patient Assessment II  3
DH 163A  Dental Radiology  3
DH 163B  Dental Radiographic Interpretation and Case Studies  1
DH 164  Dental Materials  2
DH 170  Tooth Morphology, Oral Histology, and Oral Embryology  2
DH 171  Introduction to Clinical Dental Hygiene  5
DH 173  Clinical Dental Hygiene I  5
DH 174  Periodontics  2
DH 180  Oral Pathology  2
DH 181  Clinical Dental Hygiene II  6
DH 182A  Advanced Case Studies  1
DH 183  Clinical Dental Hygiene III  6
DH 184A  Pain Management I  2
DH 184B  Pain Management II  1
DH 186A  Community Oral Health  2
DH 186B  Community Oral Health and Case Studies  1
DH 187  Dental Hygiene Law and Ethics  2

Additional Graduation Requirements  Units
COMM 1  Public Speaking  3
or
COMM 1H  Honors Public Speaking  3
or
COMM 2  Group Discussion  3
or
PSYCH 1  General Psychology  3
or
PSYCH 1H  Honors General Psychology  3
CAHM 20  Nutrition  3
SOC 1  Introduction to Sociology: Understanding Society  3
or
SOC 1H  Honors Introduction to Sociology: Understanding Society  3
or
SOC 2  Contemporary Social Problems  3
or
SOC 2H  Honors Contemporary Social Problems  3

Total Units  74.5

*Plus approved prerequisite units. See above for information on prerequisites.

*SOC 2/2H 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 prior to entering the DH 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.)

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 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.

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.

Dental Hygiene Courses

DH 7  Head and Neck Anatomy and Embryology
2 units; 1.5 hours Lecture, 1.5 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Covers the anatomy of the head and neck, emphasizing aspects useful for dental hygiene students. Includes embryonic development of the head, neck and oral cavity. Portions may be taught in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

DH 149AZ  Special Topics in Dental Hygiene Education
0.5 - 3 units; 0.5 hour Lecture, 1.5 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Teaches 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 160  Oral Health Education
2 units; 2 hours Lecture, 1 hour Laboratory
Prerequisite: Acceptance to the Cabrillo Dental Hygiene Program.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Hybrid Requisite: Completion of Concurrent enrollment in PSYCH 1 and CAHM 20.
Repeatability: May be taken 1 time.

DH 161  Preparation for Dental Hygiene Clinic
0.5 unit; 0.5 hour Lecture, 0.5 hour Laboratory
Prerequisite: Acceptance to the Cabrillo Dental Hygiene Program.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Introduces dental terminology, basic instrumentation skills, proper positioning and ergonomics, and time management for the dental hygiene student. May be offered in a Distance-Learning Format.

DH 162A  Patient Assessment I
3 units; 3 hours Lecture, 1 hour Laboratory
Prerequisite: Acceptance to the Cabrillo Dental Hygiene Program.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Introduces medical-dental history, oral inspection, oral manifestation of diseases and emergencies. May be offered in a Distance-Learning Format.

DH 162B  Patient Assessment II
3 units; 3 hours Lecture
Prerequisite: Acceptance to the Cabrillo Dental Hygiene Program and DH 162A
Corequisite: DH 173.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Covers pharmacologic principles and patients’ special needs applied to the practice of dental hygiene. Emphasis on drugs prescribed in dental settings, taken for systemic disorders and used by special populations. May be offered in a Distance-Learning Format.

DH 163A  Dental Radiology
3 units; 2 hours Lecture, 3 hours Laboratory
Prerequisite: Acceptance to the Cabrillo Dental Hygiene Program.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
 Presents principles of dental radiation theory including: radiographic techniques, laboratory and clinical application, radiation safety principles, equipment operation, processing and mounting. May be offered in a Distance-Learning Format.

DH 163B  Dental Radiographic Interpretation and Case Studies
1 unit; 1 hour Lecture, 1 hour Laboratory
Prerequisite: Acceptance to the Cabrillo Dental Hygiene Program.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Teaches identification of dental radiographic anatomy and introduces specialized techniques with analysis of case studies. May be taught in a Distance-Learning Format.
DH 164 Dental Materials
2 units; 2 hours Lecture, 1 hour Laboratory
Prerequisite: Acceptance to the Cabrillo Dental Hygiene Program.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Teaches the composition and fabrication of dental restorations, the proper care of dental restorations, and introduces dental specialties. May be offered in a Distance-Learning Format.

DH 170 Tooth Morphology, Oral Histology, and Oral Embryology
2 units; 2 hours Lecture, 1 hour Laboratory
Prerequisite: Acceptance to the Cabrillo Dental Hygiene Program.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Teaches recognition of normal and abnormal clinical appearance of the permanent and deciduous dentition as well as in-depth oral histology and oral embryology. May be offered in a Distance-Learning Format.

DH 171 Introduction to Clinical Dental Hygiene
5 units; 3 hours Lecture, 9 hours Laboratory
Prerequisite: Acceptance to the Cabrillo Dental Hygiene Program.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Introduces concepts of infection control, professional conduct, patient assessment, exploring, probing, and scaling techniques through laboratory and clinical experiences. First in a four-course series in clinical dental hygiene practice. May be offered in a Distance-Learning Format.

DH 173 Clinical Dental Hygiene I
5 units; 2 hours Lecture, 14 hours Laboratory
Prerequisite: Acceptance to the Cabrillo Dental Hygiene Program and DH 171.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Introduces dental and periodontal charting, desensitizing, dental sealants, ultrasonic scalers, and Gracey curets through laboratory and clinical experiences. May be offered in a Distance-Learning Format.

DH 174 Periodontics
2 units; 2 hours Lecture
Prerequisite: Acceptance to the Cabrillo Dental Hygiene Program.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Presents fundamental principles of periodontology: normal and diseased periodontium, the disease classifications, etiology and treatment with an emphasis on clinical application.

DH 180 Oral Pathology
2 units; 2 hours Lecture
Prerequisite: Acceptance to the Cabrillo Dental Hygiene Program.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Introduces general pathology and clinical pathology of diseases affecting the oral, head and neck areas. May be offered in a Distance-Learning Format.

DH 181 Clinical Dental Hygiene II
6 units; 1 hour Lecture, 20 hours Laboratory
Prerequisite: Acceptance to the Cabrillo Dental Hygiene Program; DH 173.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Introduces advanced clinical techniques, advanced treatment planning, and evaluation of treatment through clinical experiences. Third in a four-course series. May be offered in a Distance-Learning Format.

DH 182A Advanced Case Studies
1 unit; 1 hour Lecture
Prerequisite: Acceptance to the Cabrillo Dental Hygiene Program.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Provides opportunity to apply critical thinking skills in relating theoretical principles to clinical practice using a case study approach. May be offered in a Distance-Learning Format.

DH 183 Clinical Dental Hygiene III
6 units; 2 hours Lecture, 16 hours Laboratory
Prerequisite: Acceptance to the Cabrillo Dental Hygiene Program. DH 181.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Studies new technology and 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. May be offered in a Distance-Learning Format.

DH 184A Pain Management I
2 units; 1 hour Lecture, 3 hours Laboratory
Prerequisite: Acceptance to the Cabrillo Dental Hygiene Program.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Teaches theory and techniques for administration of regional anesthetic agents, including nerve and field blocks limited to the oral cavity. May be offered in a Distance-Learning Format.

DH 184B Pain Management II
1 unit; 1 hour Lecture, 1 hour Laboratory
Prerequisite: Acceptance to the Cabrillo Dental Hygiene Program.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Teaches administration of nitrous oxide/oxygen conscious sedation competently to clinical proficiency. May be offered in a Distance-Learning Format.

DH 186A Community Oral Health
2 units; 2 hours Lecture
Prerequisite: Acceptance to the Cabrillo Dental Hygiene Program.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Introduces the principles and practices of dental public health, and the role of the dental hygienist as an innovator of and educator in community health programs.
DH 186B Community Oral Health and Case Studies  
1 unit; 3 hours Laboratory  
Prerequisite: Acceptance to the Cabrillo Dental Hygiene Program; DH 186A.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Covers planning, implementation, and evaluation of a dental health project of the student’s own design with a dentally-underserved population. A continuation of DH 186A.

DH 187 Dental Hygiene Law and Ethics  
2 units; 2 hours Lecture  
Prerequisite: Acceptance to the Cabrillo Dental Hygiene Program.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Teaches current concepts in ethics and legalities involved in dental hygiene practice. May be offered in a Distance-Learning Format.

DIGITAL MANAGEMENT AND CAREER PREPARATION  
Business, English, and Language Arts Division  
James Weckler, Division Dean  
Division Office, Room 301  
Sadie Reynolds, Program Director,  
e-mail: sareynol@cabrillo.edu  
Aptos Counselor: (831) 479-6274 for appointment  
Watsonville Counselor: (831) 786-4734  
http://www.cabrillo.edu/academics/ace/  

Preparation for Leadership and Management Careers in the Digital Age Skills Certificate  
Program Description:  
The Academy for College Excellence is an innovative program designed for students who are under-prepared for college. The ACE program 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 Learning Communities Center, phone (831) 477-3340, or visit our web site at http://www.cabrillo.edu/academics/ace/
Digital Management Career Preparation Courses

DMCP 30  Applied and Conceptual Survey of the Sciences
2 units; 1.5 hours Lecture, 1.5 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Presents a multidisciplinary approach to biology, chemistry, and physics covering basic principles and current applications.
Transfer Credit: Transfers to CSU.

DMCP 110  Foundation Course
3 units; 2.75 hours Lecture, 0.5 hour Laboratory
Recommended Preparation: READ 255 or eligibility for READ 205.
Repeatability: May be taken 1 time.

Develops professional behaviors that lead to academic and professional career success such as developing self-discipline, leading self-managed teams, and creating effective teams composed of individuals with different working styles.

DMCP 111  Introduction to Team Self-Management
2 units; 2 hours Lecture
Recommended Preparation: READ 255 or eligibility for READ 205.
Hybrid Requisite: Completion of or concurrent enrollment in DMCP 110 or DMCP 112.
Repeatability: May be taken 1 time.

Introduces the theory and practice of team self-management and its application in work organizations: exploring 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  Social Justice Research Methods and Team Management
3 units; 3 hours Lecture, 1 hour Laboratory
Recommended Preparation: READ 255 or Eligibility for READ 205
Hybrid Requisite: Completion of or concurrent enrollment in DMCP 110 or DMCP 111.
Repeatability: May be taken 1 time.

Explores and applies social justice research methods; topics may include 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. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.

DMCP 113  Field Study in Research Methods and Team Work
1.5 units; 1.5 hours Lecture
Recommended Preparation: READ 255 or Eligibility for READ 205.
Hybrid Requisite: Completion of or concurrent enrollment in the following courses: DMCP 110 or DMCP 111 or DMCP 112.
Repeatability: May be taken 1 time.

Develops professional skills that lead to professional career success. Skills include using a scientific method-based approach for knowledge creation, facilitating team meetings, recording team discussions and decisions, and working within a self-managed team studying a social justice issue.

DMCP 115A  Digital Management–Self-Managing Teams
1 - 2 units; 1 hour Lecture or 2 hours Laboratory
Prerequisite: DMCP 112 (may be taken concurrently).
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

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
1.5 units; 1.5 hours Lecture, 2 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

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 1 time.

Presents advanced digital management topics 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 or 2 hours Laboratory
Prerequisite: DMCP 115A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Presents advanced digital management topics 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 or 2 hours Laboratory
Prerequisite: DMCP 115A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

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 120  Applications of Literacy Skills
3 units; 3 hours Lecture, 1 hour Laboratory
Corequisite: DMCP 111 and DMCP 112.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Develops reading and writing skills in conjunction with other Digital Bridge courses with emphasis on essay writing, revision and editing, grammar, reading comprehension, and vocabulary. Assists in the preparation for ENGL 1A.

DMCP 130  First Year Experience Seminar
1 - 2 units; 0.5 hour Lecture, 1.5 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Supports students’ successful participation within learning communities and transition to other Cabrillo College programs.

DMCP 131  Applied Survey of Careers in Technology and Science
2 units; 1.5 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

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 160 AZZ  Special Topics for Academy for College Excellence Program
1 - 4 units; 1 hour Lecture or 3 hours Laboratory
Recommended Preparation: Eligibility for READ 255 or READ 205.
Repeatability: May be taken 1 time.

Investigates special selected areas of interest for the Academy for College Excellence Program 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
John Graulty, Division Dean
Division Office, Room VAPA1007
Francine Van Meter, Program Chair, (831) 479-6191
Aptos Counselor: (831) 479-6271 for appointment
Watsonville Counselor: (831) 786-4734
Call (831) 479-6464 for more information
http://www.cabrillo.edu/programs

Digital Publishing A.S. Degree
Program Description:

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 specialization 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. 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.

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 Achievement 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 Achievement 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).
Program Learning Outcomes:
1. Demonstrate the ability to research, evaluate, and report on trends in the industry and the relative merits and qualities of print media examples. (Global Awareness, Critical Thinking, Communication.)
2. Apply visual thinking skills to generate complete print media projects from idea stage, or specifically assigned task, to the finished product. (Critical Thinking, Professional Development, Communication)
3. Demonstrate efficiency, accuracy, and attention to detail in all stages of the planning, design, and production process. (Critical Thinking, Professional Development, Communication)
4. Apply practical and technical competencies and achievement in the use of computers, peripherals, the Internet, and tools involved in the production of digital media. (Global Awareness, Professional Development)

General Education Requirements

Core Courses (22 units)
- DM 1 Introduction to Digital Media 4
- DM 2 Digital Publishing I 3
- DM 4 Digital Graphics 3
- DM 6 Digital Publishing II 3
- DM 8 Design for Publishing 3
- DM 11 Digital Illustration 0.5-3
- DM 12 Photoshop Techniques I 3

Digital Media Approved Electives (12 Units) Units
- AP 6 Introduction to Digital Photography 0.5-3
- AP 9A Beginning Photography 3
- AP 14 Introduction to Video Art 0.5-3
- AP 15 History of Photography 3
- AP 45 Contemporary Trends in Photography 3
- AP 46A Digital Photography 3
- AP 46B 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 40PB Photographic Images and Books 1-3
- BUS 50 Advertising for Small Business 3
- BUS 89 Starting & Operating an eCommerce Business 3
- CAbt 38 Introduction to Microsoft Office 3-4
- CAbt 110A Computer Keyboarding-Alphabet Keys 0.5
- CS 1L Technology Tools 2
- CS 12AL Intro to Programming for the Non-Major 4
- CS 12GP Introduction to Programming Using Games and Simulations 4
- CS 12J Introduction to Programming Concepts and Methodology, Java 4
- DM 3 Design in Society 3
- DM 13 Photoshop Techniques II 3
- DM 34 Introduction to Video Production 3
- DM 35 Intermediate Video Production 3
- DM 60 Web Publishing I: (X)HTML and CSS Level 1 3
- DM 61 Web Publishing II: Graphics and CSS Level 2 3
- DM 62 Web Publishing III: Servers, Scripts, and Advanced CSS 3
- DM 70 Web Design Basics Using Dreamweaver 3
- DM 72 Web Design and Animation Using Flash 3
- DM 76 Design for Web Media 3
- DM 134C Video Projects 3
- DM 190AZZ Special Topics in Digital Media 0.5-4
- DM 190CD Design and Delivery of an Online Course 1-3
- DM 199C Career Work Experience Education 0.5-4
- 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 59AZ The Language of Film: Special Topics in Film 3
- ETECH 140 Introduction to Maya 3
- JOURN 53 Newspaper Production 1-3
- TA 77 Correlation of the Arts 3

Total Units 60

Digital Publishing Certificate of Achievement

Program Learning Outcomes
1. Demonstrate the ability to research, evaluate, and report on trends in the industry and the relative merits and qualities of print media examples. (Global Awareness, Critical Thinking, Communication)
2. Apply visual thinking skills to generate complete print media projects from idea stage, or specifically assigned task, to the finished product. (Critical Thinking, Professional Development, Communication)
3. Demonstrate efficiency, accuracy, and attention to detail in all stages of the planning, design, and production process. (Critical Thinking, Professional Development, Communication)
4. Apply practical and technical competencies and achievement in the use of computers, peripherals, the Internet, and tools involved in the production of digital media. (Global Awareness, Professional Development)

Core Courses (19.5-22 units)
- DM 1 Introduction to Digital Media 4
- DM 2 Digital Publishing I 3
- DM 4 Digital Graphics 3
- DM 6 Digital Publishing II 3
- DM 8 Design for Publishing 3
- DM 11 Digital Illustration 0.5-3
- DM 12 Photoshop Techniques I 3

Other Required Courses (3 units) Units
- ENGL 100 Elements of Writing 3
-or- ENGL 1A/1AH/1AMC/1AMCH 3
-or- CAbt 157 Business and Technical Writing 3
-or- COMM 2 Group Discussion 3
-or- COMM 10 Communication Process 3
Total Units 22.5-25
Web Media A.S. Degree

**Program Description:**

Web Media Program The Web Media program provides instruction in the principles, concepts, tools, and techniques involved in the design, development, production and publication of interactive web sites. Web Media courses are designed to prepare students for entry-level positions in the fields of planning, design, and production of web sites and related interactive screen-based media.

**Program Learning Outcomes:**

1. Demonstrate the ability to research, evaluate, and report on trends in the industry and the relative merits and qualities of web media examples. Global Awareness, Critical Thinking, Communication
2. Apply visual thinking skills to generate complete web media projects from idea stage, or specifically assigned task, to the finished product. Critical Thinking, Professional Development, Communication
3. Demonstrate efficiency, accuracy, and attention to detail in all stages of the planning, design, and production process. Critical Thinking, Professional Development, Communication
4. Apply practical and technical competencies and achievement in the use of computers, peripherals, the Internet, and tools involved in the production of digital media. Global Awareness, Professional Development

Web Media Certificate of Achievement

**Program Learning Outcomes:**

1. Demonstrate the ability to research, evaluate, and report on trends in the industry and the relative merits and qualities of web media examples. Global Awareness, Critical Thinking, Communication
2. Apply visual thinking skills to generate complete web media projects from idea stage, or specifically assigned task, to the finished product. Critical Thinking, Professional Development, Communication
3. Demonstrate efficiency, accuracy, and attention to detail in all stages of the planning, design, and production process. Critical Thinking, Professional Development, Communication
4. Apply practical and technical competencies and achievement in the use of computers, peripherals, the Internet, and tools involved in the production of digital media. Global Awareness, Professional Development

**Core Courses (19 units)**

- **DM 1** Introduction to Digital Media ......................... 4
- **DM 4** Digital Graphics ...................................... 3
- **DM 12** Photoshop Techniques I .............................. 3
- **DM 60** Web Publishing I: (X)HTML and CSS Level 1 ...... 3
- **DM 72** Web Design and Animation Using Flash ............ 3
- **DM 76** Design for Web Media .............................. 3

**Electives:**

- **ART 4** Beginning Design: Design and Color .................. 3
- **BUS 89** Starting & Operating an eCommerce Business ....... 3

**Other Required Courses:**

- **ENGL 100** Elements of Writing .................... 3
- **ENGL 1A/1AH/1AMC/1AMCH** .................. 3
- **CABT 157** Business and Technical Writing .......... 3
- **COMM 2** Group Discussion .......................... 3
- **COMM 10** Communication Process .................. 3

**Total Units** 25

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*(Any Course numbered 1-199)................................. 5

**Total Units** 60*
Web Development Certificate of Achievement

Program Description:
The Web Development program provides instruction in design principles, concepts, tools, and techniques involved in the creation of interactive web sites; focusing on the visual components of web site design and content creation: layout, graphics, color scheme, and navigational elements.

Program Learning Outcomes:
1. Demonstrate the ability to research, evaluate and solve design problems to develop team-based web media projects from conception to completion. Global Awareness, Critical Thinking, Communication, Professional Development
2. Apply practical, technical and production competencies and accuracy in the use of current digital technology to develop and produce diverse web media projects. Global Awareness, Critical Thinking, Communication, Professional Development

Core Courses (25 units)
DM 1  Introduction to Digital Media ...................... 4
DM 4  Digital Graphics ................................ 3
DM 12 Photoshop Techniques I .......................... 3
DM 60 Web Publishing I: (X)HTML and CSS Level 1 .... 3
DM 61 Web Publishing II: Graphics and CSS Level 2 .... 3
DM 70 Web Design Basics Using Dreamweaver .......... 3
DM 72 Web Design and Animation Using Flash .......... 3
DM 76 Design for Web Media ............................ 3

Other Required Courses:
ENGL 100  Elements of Writing .......................... 3
or
ENGL 1A/1AH/1AMC/1AMCH .............................. 3
or
CABT 157 Business and Technical Writing ............... 3
or
COMM 2  Group Discussion .............................. 3
or
COMM 10 Communication Process ....................... 3

Total Units ............................................. 31

Web Design Certificate of Achievement

Program Description:
The Web Design program provides instruction in design principles, concepts, tools, and techniques involved in the creation of interactive web sites; focusing on the visual components of web site design and content creation: layout, graphics, color scheme, and navigational elements.

Program Learning Outcomes:
1. Demonstrate the ability to research, evaluate, and solve design problems to develop team-based web media projects from conception to completion. Global Awareness, Critical Thinking, Communication, Professional Development
2. Apply visual thinking skills, efficiency, technical competency, and accuracy to plan, design, create and produce web media projects from conception to completion. Critical Thinking, Professional Development, Communication

Core Courses (25.5-28 units)
DM 1  Introduction to Digital Media ...................... 4
DM 4  Digital Graphics ................................ 3
DM 11 Digital Illustration ............................... 0.5-3
DM 12 Photoshop Techniques I .......................... 3
DM 13 Photoshop Techniques II .......................... 3
DM 60 Web Publishing I: (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 76 Design for Web Media ............................ 3

Other Required Courses:
ENGL 100  Elements of Writing .......................... 3
or
ENGL 1A/1AH/1AMC/1AMCH .............................. 3
or
CABT 157 Business and Technical Writing ............... 3
or
COMM 2  Group Discussion .............................. 3
or
COMM 10 Communication Process ....................... 3

Total Units ............................................. 31.5-34

Graphic Imaging Skills Certificate

Program Learning Outcomes:
1. Create and produce images for use in graphic design and media arts.

Required Courses:
DM 1  Introduction to Digital Media ...................... 4
DM 4  Digital Graphics ................................ 3
DM 12 Photoshop Techniques I .......................... 3
DM 11 Digital Illustration ............................... 0.5-3
DM 13 Photoshop Techniques II .......................... 3

Total Units ............................................. 13.5-16

Motion Media Skills Certificate

Program Learning Outcomes:
1. Create and produce time-based motion media for graphic design and media arts projects.

Required Courses:
DM 1  Introduction to Digital Media ...................... 4
DM 4  Digital Graphics ................................ 3
DM 72 Web Design and Animation Using Flash .......... 3
DM 34 Introduction to Video Production ................ 3
DM 35 Intermediate Video Production ................... 3

Total Units ............................................. 16

Publication Design Skills Certificate

Program Learning Outcomes:
1. Design, layout, and produce professional graphic design and media arts projects for clients, portfolios, and self-promotion.

Required Courses:
DM 1  Introduction to Digital Media ...................... 4
DM 2  Digital Publishing I ............................... 3
DM 4  Digital Graphics ................................ 3
DM 6  Digital Publishing II ............................... 3
DM 8  Design for Publishing ............................. 3

Total Units ............................................. 16
Web Production Skills Certificate

Program Description:

Program Learning Outcomes:

1. Use current techniques to develop and publish websites compliant with content and accessibility guidelines.

Required Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>DM 1</td>
<td>Introduction to Digital Media</td>
<td>4</td>
</tr>
<tr>
<td>DM 60</td>
<td>Web Publishing I: (X)HTML and CSS Level 1</td>
<td>3</td>
</tr>
<tr>
<td>DM 70</td>
<td>Web Design Basics Using Dreamweaver</td>
<td>3</td>
</tr>
<tr>
<td>DM 61</td>
<td>Web Publishing II: Graphics and CSS Level 2</td>
<td>3</td>
</tr>
<tr>
<td>DM 62</td>
<td>Web Publishing III: Servers, Scripts, and Advanced CSS</td>
<td>3</td>
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<tr>
<td>or</td>
<td>DM 72</td>
<td>Web Design and Animation Using Flash</td>
</tr>
</tbody>
</table>

Total Units: 16

Website Design Skills Certificate

Program Learning Outcomes:

1. Design websites using web development tools.

Required Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>DM 1</td>
<td>Introduction to Digital Media</td>
<td>4</td>
</tr>
<tr>
<td>DM 4</td>
<td>Digital Graphics</td>
<td>3</td>
</tr>
<tr>
<td>DM 60</td>
<td>Web Publishing I: (X)HTML and CSS Level 1</td>
<td>3</td>
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<tr>
<td>DM 72</td>
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<td>3</td>
</tr>
<tr>
<td>DM 76</td>
<td>Design for Web Media</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units: 16

Digital Media Courses

DM 1  Introduction to Digital Media
4 units; 3 hours Lecture, 2 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Introduces digital media from historical and contemporary perspectives, emphasizing practical fundamentals of design, the production process, and creative technology applications. Topics include: concepts, trends, content, methods, forms, careers, and delivery of digital media for print, screen display, and interactivity. May be offered in a Distance-Learning Format. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering. Materials fees apply.

Transfer Credit: Transfers to CSU; UC.

DM 2  Digital Publishing I
3 units; 3 hours Lecture, 2 hours Laboratory
Prerequisite: DM 2 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Builds on InDesign basics taught in DM 1 covering page design and layout, typographic fundamentals, and precise formatting to produce print-ready documents and publications. Taught on Macintosh. Adaptable to Windows. May be offered in a Distance-Learning Format. Materials fees apply.

Transfer Credit: Transfers to CSU.

DM 3  Design in Society
3 units; 3 hours Lecture, 2 hours Laboratory
Prerequisite: DM 1 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Studies the role of design in shaping the environment, utilitarian objects, and communication for commerce, culture, and entertainment. May be offered in a Distance-Learning Format.

Transfer Credit: Transfers to CSU.

DM 4  Digital Graphics
3 units; 3 hours Lecture, 2 hours Laboratory
Prerequisite: DM 1 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.


Transfer Credit: Transfers to CSU; UC.

DM 5  Advanced CSS
3 units; 3 hours Lecture, 2 hours Laboratory
Prerequisite: DM 4 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Covers advanced client-centered InDesign projects, focusing on design principles, typography, style sheets, color, graphic formats, long documents, pre-press requirements, professional publishing methods for diverse delivery, and efficient working techniques. Taught on Macintosh. Adaptable to Windows. May be offered in a Distance-Learning Format. Materials fees apply.

Transfer Credit: Transfers to CSU.

DM 6  Digital Publishing II
3 units; 3 hours Lecture, 2 hours Laboratory
Prerequisite: DM 2 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Covers advanced client-centered InDesign projects, focusing on design principles, typography, style sheets, color, graphic formats, long documents, pre-press requirements, professional publishing methods for diverse delivery, and efficient working techniques. Taught on Macintosh. Adaptable to Windows. May be offered in a Distance-Learning Format. Materials fees apply.

Transfer Credit: Transfers to CSU.

DM 7  Web Design & Anim Using Flash
3 units; 3 hours Lecture, 2 hours Laboratory
Prerequisite: DM 2 and DM 4 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.


Transfer Credit: Transfers to CSU.

DM 8  Design for Publishing
3 units; 3 hours Lecture, 2 hours Laboratory
Prerequisite: DM 2 and DM 4 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Surveys graphic design careers, covering practical application of design principles for print and multimedia production, focusing on self-promotion. Uses intermediate page layout and graphics software to complete exercises and projects. Taught on Macintosh. Adaptable to Windows. May be offered in a Distance-Learning Format. Materials fees apply.

Transfer Credit: Transfers to CSU.

DM 10  Digital Illustration
1.5 - 3 units; 0.5 hour Lecture, 1 hour Laboratory
Prerequisite: DM 2 and DM 3 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Focuses on design and editing of digital illustrations, covering practical application of design principles for print and multimedia production, focusing on self-promotion. Uses intermediate page layout and graphics software to complete exercises and projects. Taught on Macintosh. Adaptable to Windows. May be offered in a Distance-Learning Format. Materials fees apply.

Transfer Credit: Transfers to CSU.
DM 12  Photoshop Techniques I
3 units; 3 hours Lecture, 2 hours Laboratory
Prerequisite: DM 4 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Covers intermediate Photoshop techniques and topics including: image manipulation, adjustment layers, resolution, masks, channels, retouching, and colorization. Taught on Macintosh. Adaptable to Windows. May be offered in a Distance-Learning Format. Materials fees apply.
Transfer Credit: Transfers to CSU.

DM 13  Photoshop Techniques II
3 units; 3 hours Lecture, 2 hours Laboratory
Prerequisite: DM 12 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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. May be offered in a Distance-Learning Format. Materials fees apply.
Transfer Credit: Transfers to CSU.

DM 34  Introduction to Video Production
3 units; 3 hours Lecture, 2 hours Laboratory
Prerequisite: DM 1 or equivalent skills.
Recommended Preparation: DM 4 or equivalent skills; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Introduces video production processes and techniques for audio and video capture, editing, and delivery on current media, including the web. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

DM 35  Intermediate Video Production
3 units; 3 hours Lecture, 2 hours Laboratory
Prerequisite: DM 34 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

DM 60  Web Publishing I: (X)HTML and CSS Level 1
3 units; 3 hours Lecture, 2 hours Laboratory
Prerequisite: DM 1 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

DM 61  Web Publishing II: Graphics and CSS Level 2
3 units; 3 hours Lecture, 2 hours Laboratory
Prerequisite: DM 1 and DM 60.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
 Presents planning, design, and production of graphics and page layouts for web sites using hand-coded (X)HTML and CSS Level 2, including image creation and editing, color, conversion, compression, web typography, rollovers, tables, validation, and design considerations specific to online graphics. Taught on Macintosh. Adaptable to Windows. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

DM 62  Web Publishing III: Servers, Scripts, and Advanced CSS
3 units; 3 hours Lecture, 2 hours Laboratory
Prerequisite: DM 61 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

DM 70  Web Design Basics Using Dreamweaver
3 units; 3 hours Lecture, 2 hours Laboratory
Prerequisite: DM 1 and DM 60.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

DM 72  Web Design and Animation Using Flash
3 units; 3 hours Lecture, 2 hours Laboratory
Prerequisite: DM 1 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.
DM 76  Design for Web Media
3 units; 3 hours Lecture, 2 hours Laboratory
Prerequisite: DM 4 and DM 60 and DM 72 or equivalent skills.
Recommended Preparation: DM 70 or equivalent skills; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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.

DM 190AZZ  Special Topics in Digital Media
0.5 - 4 units; 0.5 hour Lecture, 1.5 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Presents 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. May be offered in a Distance-Learning Format.

EARLY CHILDHOOD EDUCATION
Human Arts and Social Sciences Division
Isabel O'Connor, Division Dean
Division Office, Room 420
Jean Gallagher-Heil, Program Chair, (831) 479-5015
Michelle Chao, Faculty, información en español, (831) 477-3502
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 786-4734
Call (831) 479-6354 for more information
http://www.cabrillo.edu/programs

Early Childhood Education A.S.-T. Transfer Degree
Program Description:

The E.C.E. program provides the course work required by the State of California Department of Social Services and for the Department of Education Child Development Permit. It also provides a foundation for transfer to four-year programs in Child Development, Human Development or Early Childhood Education. A broad range of employment opportunities are available by fulfilling the various certificate and degree requirements. Career options include infant-toddler specialist, children’s center teacher, family childcare provider, director or administrator in state-funded, public or private early care and education settings.

Cabrillo offers options for a degree in Early Childhood Education. The first option listed below is the Associate in Science in Early Childhood Education for Transfer (A.S.-T), which is intended for students who plan to complete a bachelor’s degree in a similar major at a CSU campus. Students completing these degrees are guaranteed admission to the CSU system, but not to a particular campus or major. See Associate Degree for Transfer information in the Cabrillo College Catalog. This degree may not be the best option for students intending to transfer to a particular CSU campus or to a university or college that is not part of the CSU system. 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.

The following is required for all A.A.-T or A.S.-T degrees:

- Completion of 60 CSU-transferable semester units.
- Minimum grade-point average (GPA) of at least 2.0 in all CSU-transferable coursework. While a minimum of 2.0 is required for admission, some majors may require a higher GPA.
- Completion of a minimum of 18 semester units in the major with a letter grade of "C" or better. A "P" grade is not acceptable for courses in the major.
- Certified completion of the California State University General Education-Breadth pattern (CSU GE Breadth) or the Intersegmental General Education Transfer Curriculum (IGETC) pattern.

The second option fulfills requirements for a non-transferable A.S. Degree in Early Childhood Education at Cabrillo College.

Contact the Early Childhood Education Department for an appointment with a faculty program advisor and the Cabrillo counseling office for further program and degree requirements.
Completion of CSU or IGETC
General Education Requirements (37-39 units) 37-39

Core (25 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE 31</td>
<td>Child Growth and Development</td>
<td>3</td>
</tr>
<tr>
<td>ECE 32</td>
<td>Child, Family and Community</td>
<td>3</td>
</tr>
<tr>
<td>ECE 34</td>
<td>Observation and Assessment Methods in Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>ECE 51</td>
<td>Principles of Working with Young Children</td>
<td>3</td>
</tr>
<tr>
<td>ECE 52</td>
<td>Teaching in a Diverse Society</td>
<td>3</td>
</tr>
<tr>
<td>ECE 53</td>
<td>Introduction to Curriculum for the Young Child</td>
<td>3</td>
</tr>
<tr>
<td>ECE 54</td>
<td>Early Childhood Education Practicum</td>
<td>4</td>
</tr>
<tr>
<td>ECE 59</td>
<td>Health, Safety, and Nutrition Issues in the Child Care Setting</td>
<td>3</td>
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</tbody>
</table>

Electives (0-2 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any course numbered 1-99</td>
<td>0-2</td>
<td></td>
</tr>
</tbody>
</table>

Total Units 60

Note: ECE 31 and 32 are also general education courses.

Early Childhood Education A.S. Degree

Career Opportunities:

Career options include infant-toddler specialist, children’s center teacher, family childcare provider, director or administrator in state-funded, public or private early care and education settings. Contact the Early Childhood Education Department for an appointment with a faculty program advisor and the Cabrillo counseling office for further program and degree requirements.

Early Childhood Education A.S. Degree

A.S. General Education 21 Units

Core Courses (34.5)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE 31</td>
<td>* Child Growth and Development</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>ECE 131</td>
<td>3</td>
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<tr>
<td>ECE 32</td>
<td>* Child, Family and Community</td>
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<tr>
<td>or</td>
<td>ECE 142</td>
<td>3</td>
</tr>
<tr>
<td>ECE 34</td>
<td>* Observation and Assessment Methods in Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>ECE 51</td>
<td>* Principles of Working with Young Children</td>
<td>3</td>
</tr>
<tr>
<td>ECE 52</td>
<td>* Teaching in a Diverse Society</td>
<td>3</td>
</tr>
<tr>
<td>ECE 53</td>
<td>* Introduction to Curriculum for the Young Child</td>
<td>3</td>
</tr>
<tr>
<td>ECE 53L</td>
<td>Curriculum Materials Lab</td>
<td>0.5</td>
</tr>
<tr>
<td>ECE 54</td>
<td>* Early Childhood Education Practicum</td>
<td>4</td>
</tr>
<tr>
<td>ECE 59</td>
<td>* Health, Safety, and Nutrition Issues in the Child Care Setting</td>
<td>3</td>
</tr>
<tr>
<td>ECE 135</td>
<td>Infant and Toddler Program Development</td>
<td>4</td>
</tr>
<tr>
<td>ECE 146</td>
<td>The Child with Special Needs in the Child Care Program</td>
<td>2</td>
</tr>
<tr>
<td>ECE 158</td>
<td>Working With Families</td>
<td>3</td>
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</tbody>
</table>

Electives (3.5 Units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ECE 133</td>
<td>Understanding Infant Development</td>
<td>1-3</td>
</tr>
<tr>
<td>ECE 134</td>
<td>Understanding Toddler Development</td>
<td>1-3</td>
</tr>
<tr>
<td>ECE 134C</td>
<td>Curriculum with Toddlers</td>
<td>1-3</td>
</tr>
<tr>
<td>ECE 134E</td>
<td>Nurturing Environments for Infants and Toddlers</td>
<td>0.5-3</td>
</tr>
<tr>
<td>ECE 134SN</td>
<td>Infants and Toddlers with Special Needs in the Childcare Program</td>
<td>1-2</td>
</tr>
<tr>
<td>ECE 139ELF</td>
<td>Early Literacy Foundations for Infants and Toddlers</td>
<td>3</td>
</tr>
<tr>
<td>ECE 145</td>
<td>Peace Education and Children’s Literature</td>
<td>1-3</td>
</tr>
<tr>
<td>ECE 163</td>
<td>Advanced Curriculum for the Young Child</td>
<td>2-3</td>
</tr>
</tbody>
</table>

Total Units 60

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

*Denotes courses that are part of the Curriculum Alignment Project (CAP) 8 Lower-Division Transfer Program*
Teaching Certificate of Achievement

Program Description:
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 family childcare provider or specialist in state-funded programs, in public or private settings. Contact the Early Childhood Education Department for an appointment with a faculty program advisor and the counseling office for further program requirements.

Program Learning Outcomes:
1. Teach and care for young children using effective communication and relationship skills
2. Create programs, curriculum and environments based on child development theory, observations, documentation and assessments of children.
3. Demonstrate principles of cultural and linguistic competency, inclusive practices, and anti-bias perspectives in teaching and caring for young children.
4. Develop respectful, two-way partnerships with the families of children in early childhood programs.
5. Demonstrate professional and ethical practices in teaching and caring for young children.

Core Courses (34.5)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE 31</td>
<td>* Child Growth and Development</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>ECE 131</td>
<td>Child Growth and Development</td>
</tr>
<tr>
<td>ECE 32</td>
<td>* Child, Family and Community</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>ECE 142</td>
<td>Niño, familia, y comunidad</td>
</tr>
<tr>
<td>ECE 34</td>
<td>* Observation and Assessment Methods in Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>ECE 51</td>
<td>* Principles of Working with Young Children</td>
<td>3</td>
</tr>
<tr>
<td>ECE 52</td>
<td>* Teaching in a Diverse Society</td>
<td>3</td>
</tr>
<tr>
<td>ECE 53</td>
<td>* Introduction to Curriculum for the Young Child</td>
<td>3</td>
</tr>
<tr>
<td>ECE 53L</td>
<td>Curriculum Materials Lab</td>
<td>0.5</td>
</tr>
<tr>
<td>ECE 54</td>
<td>* Early Childhood Education Practicum</td>
<td>4</td>
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<td>ECE 59</td>
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<td>ECE 146</td>
<td>The Child with Special Needs in the Child Care Program</td>
<td>2</td>
</tr>
<tr>
<td>ECE 158</td>
<td>Working With Families</td>
<td>3</td>
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</table>

Core: Special Curriculum Topics (Take 1 unit from the following:)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ECE 156A</td>
<td>Curriculum for the Young Child: Life Science</td>
<td>1-3</td>
</tr>
<tr>
<td>or</td>
<td>ECE 156B</td>
<td>Curriculum for the Young Child: Physical Science</td>
</tr>
<tr>
<td>or</td>
<td>ECE 156C</td>
<td>Curriculum for the Young Child: Social Knowledge</td>
</tr>
<tr>
<td>or</td>
<td>ECE 156D</td>
<td>Large Motor and Movement Curriculum</td>
</tr>
<tr>
<td>or</td>
<td>ECE 156E</td>
<td>Exploring Music with the Young Child</td>
</tr>
<tr>
<td>or</td>
<td>ECE 156F</td>
<td>Teaching Creative Movement to Young Children</td>
</tr>
<tr>
<td>or</td>
<td>ECE 156G</td>
<td>Circle Time Activities</td>
</tr>
<tr>
<td>or</td>
<td>ECE 156H</td>
<td>Cooking Curriculum for Young Children</td>
</tr>
<tr>
<td>or</td>
<td>ECE 156J</td>
<td>Superhero and Weapon Play</td>
</tr>
<tr>
<td>or</td>
<td>ECE 156L</td>
<td>Fostering First and Second Language Development</td>
</tr>
<tr>
<td>or</td>
<td>ECE 156M</td>
<td>Early Literacy Foundations for Young Children</td>
</tr>
<tr>
<td>or</td>
<td>ECE 156N</td>
<td>Early Math Foundations for Young Children</td>
</tr>
</tbody>
</table>

Other Required Courses (3 Units)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ENGL 100</td>
<td>Elements of Writing</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>ENGL 1A/1AH/1AMC/1AMCH</td>
<td>3</td>
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</tbody>
</table>

Total Units 38.5

*Denotes courses that are part of the Curriculum Alignment Project (CAP) 8 Lower-Division Transfer Program
ECE Administration Certificate of Achievement

Program Description:
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.

Program Learning Outcomes:
1. Demonstrate professional and ethical practices in supervising programs that teach and care for young children based on: developmental theory, principles of cultural and linguistic competency, anti-bias education principles and inclusive practices, and that support partnerships with families and promote professional growth for teachers.

Required
Teaching Certificate of Achievement 38.5 Units

Other Required Courses:
ECE 157A Administration and Supervision of Children’s Programs 3
ECE 157B Administration and Supervision of Children’s Programs 3
ECE 157C Supervising Adults in the Childcare Setting 2
Total Units 46.5

All Cabrillo and State Specializations

Certificates of Achievement

Program Description:
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 as described in each Certificate of Achievement.

Cabrillo and State Requirements (24 units to include the following) Units
ECE 31 Child Growth and Development 3
or
ECE 131 Child Growth and Development 3
ECE 32 Child, Family and Community 3
or
ECE 142 Niño, familia, y comunidad 3
ECE 51 Principles of Working with Young Children 3
ECE 53 Introduction to Curriculum for the Young Child 3

Additional ECE courses numbered 1-199 12

Required-6 units of specialized coursework from below: Units
ECE 52 Teaching in a Diverse Society 3
AND 3 units from courses below:
ECE 134SN Infants and Toddlers with Special Needs in the Childcare Program 1-2
ECE 145 Peace Education and Children’s Literature 1-3
ECE 146 The Child with Special Needs in the Child Care Program 2

Total Units 30

Anti-Bias Education Certificate of Achievement

Program Learning Outcomes:
1. Integrate principles of cultural and linguistic competency, inclusive practices, and anti-bias education principles when teaching, caring and developing programs for young children.

Cabrillo and State Requirements (24 units to include the following) Units
ECE 31 Child Growth and Development 3
or
ECE 131 Child Growth and Development 3
ECE 32 Child, Family and Community 3
or
ECE 142 Niño, familia, y comunidad 3
ECE 51 Principles of Working with Young Children 3
ECE 53 Introduction to Curriculum for the Young Child 3

Additional ECE courses numbered 1-199 12

Required-6 units of specialized coursework from below: Units
ECE 52 Teaching in a Diverse Society 3
AND 3 units from courses below:
ECE 134SN Infants and Toddlers with Special Needs in the Childcare Program 1-2
ECE 145 Peace Education and Children’s Literature 1-3
ECE 146 The Child with Special Needs in the Child Care Program 2

Total Units 30
### Children's Literacy Curriculum Certificate of Achievement

**Program Description:**

The Certificate of Achievement in Children's Literacy Curriculum reflects accomplishment in the skills and knowledge necessary to support the language and emergent literacy development of young children utilizing developmentally appropriate materials and guidance.

**Program Learning Outcomes:**

1. Create curriculum and environments that promote children's language and literacy development based on developmental principles, observations, documentation and assessments of children.
2. Integrate principles of cultural and linguistic competency, inclusive practices, and anti-bias perspectives in developing curriculum for young children.

**Cabriillo and State Requirements**

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE 31 Child Growth and Development</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>ECE 131 Child Growth and Development</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>ECE 32 Child, Family and Community</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>ECE 142 Niño, familia, y comunidad</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>ECE 51 Principles of Working with Young Children</td>
<td>3</td>
</tr>
<tr>
<td>ECE 53 Introduction to Curriculum for the Young Child</td>
<td>3</td>
</tr>
<tr>
<td>Additional ECE courses numbered 1-199</td>
<td>12</td>
</tr>
</tbody>
</table>

**Required-6 units of specialized coursework from below:**

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
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<tbody>
<tr>
<td>ECE 139ELF Early Literacy Foundations for Infants and Toddlers</td>
<td>3</td>
</tr>
<tr>
<td>ECE 144C Early Literacy Foundations for Preschool Children</td>
<td>3</td>
</tr>
<tr>
<td>ECE 145 Peace Education and Children's Literature</td>
<td>1-3</td>
</tr>
<tr>
<td>ECE 156L Fostering First and Second Language Development</td>
<td>1-3</td>
</tr>
<tr>
<td>ECE 156M Early Literacy Foundations for Young Children</td>
<td>1-3</td>
</tr>
<tr>
<td>ENGL 20B Children’s Literature</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Units**

30

### Infant/Toddler Care Certificate of Achievement

**Program Description:**

The Certificate of Achievement in Infant and Toddler Care reflects accomplishment in the skills and knowledge necessary to provide quality care and education for young children from early infancy through two years of age.

**Program Learning Outcomes:**

1. Integrate principles of cultural and linguistic competency, inclusive practices, and anti-bias education to create curriculum and environments for infants and toddlers based on developmental principles, observations, documentation and assessments of children.
2. Develop respectful relationships with children and families in infant/toddler programs.

**Cabriillo and State Requirements**

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE 31 Child Growth and Development</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>ECE 131 Child Growth and Development</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>ECE 32 Child, Family and Community</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>ECE 142 Niño, familia, y comunidad</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
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</tr>
<tr>
<td>ECE 51 Principles of Working with Young Children</td>
<td>3</td>
</tr>
<tr>
<td>ECE 53 Introduction to Curriculum for the Young Child</td>
<td>3</td>
</tr>
<tr>
<td>Additional ECE courses numbered 1-199</td>
<td>12</td>
</tr>
</tbody>
</table>

### Curriculum Planning Certificate of Achievement

**Program Learning Outcomes:**

1. Integrate principles of cultural and linguistic competency, inclusive practices, and anti-bias education to create curriculum and environments based on developmental principles, observations, documentation and assessments of children.
Required-6 units of specialized coursework from below:  

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ECE 135</td>
<td>Infant and Toddler Program Development</td>
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<tr>
<td>AND</td>
<td>2 units from courses below</td>
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<tr>
<td>ECE 133</td>
<td>Understanding Infant Development</td>
<td>1</td>
</tr>
<tr>
<td>ECE 134</td>
<td>Understanding Toddler Development</td>
<td>1-3</td>
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<tr>
<td>ECE 139AZ</td>
<td>Special Topics in Infant/Toddler Development and Care</td>
<td>1-3</td>
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<tr>
<td>ECE 134C</td>
<td>Curriculum with Toddlers</td>
<td>1-3</td>
</tr>
<tr>
<td>ECE 134E</td>
<td>Nurturing Environments for Infants and Toddlers</td>
<td>0.5-3</td>
</tr>
<tr>
<td>ECE 134SN</td>
<td>Infants and Toddlers with Special Needs in the Childcare Program</td>
<td>1-2</td>
</tr>
</tbody>
</table>

Total Units 30

Working with Culturally Diverse Families Certificate of Achievement

Program Learning Outcomes:
1. Integrate principles of cultural and linguistic competency, inclusive practices, and anti-bias education in teaching and caring for young children and working with their families.

Cabrillo and State Regulations

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 from below: 24

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE 158</td>
<td>Working With Families</td>
<td>3</td>
</tr>
<tr>
<td>ECE 52</td>
<td>Teaching in a Diverse Society</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units 30

Bilingual Spanish English Teaching Certificate of Achievement

Program Learning Outcomes:
1. Create curriculum and environments that promote dual language learning, for children whose home language is either Spanish or English, based on developmental principles, cultural and linguistic competency and anti-bias education and respectful relationships.

Cabrillo and State Requirements

(24 units to include the following) 24

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>ENGL 100</td>
<td>Elements of Writing</td>
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</tr>
<tr>
<td>SPAN 4</td>
<td>Intermediate Spanish II</td>
<td>5</td>
</tr>
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<td>or</td>
<td>SPAN 17 Elementary Spanish for Spanish Speakers</td>
<td>4</td>
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</tbody>
</table>

Total Units 31-32

Spanish/English Early Childhood Teaching Skills Certificate

Program Learning Outcomes:
1. Create curriculum and environments that promote children’s bilingual language development based on developmental principles, observations, documentation and assessments of children.

Required Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE 32</td>
<td>Child, Family and Community</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>ECE 142 Niño, familia, y comunidad</td>
<td>3</td>
</tr>
<tr>
<td>ECE 51</td>
<td>Principles of Working with Young Children</td>
<td>3</td>
</tr>
<tr>
<td>ECE 53</td>
<td>Introduction to Curriculum for the Young Child</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 100</td>
<td>Elements of Writing</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 4</td>
<td>Intermediate Spanish II</td>
<td>5</td>
</tr>
<tr>
<td>or</td>
<td>SPAN 17 Elementary Spanish for Spanish Speakers</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Units 16-17
### Early Childhood Education Courses

**ECE 31  Child Growth and Development**

3 units; 3 hours Lecture
Corequisite: For sections taught in Spanish or in a Bilingual Format: Concurrent enrollment in an appropriate ESL course or ENGL 255, as indicated by assessment or an ESL prerequisite course.
Recommended Preparation: For sections taught in an English Format: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Examines the major physical, psychosocial, and cognitive/language developmental milestones for children from conception through adolescence with an emphasis on non-judgmental observation. Focuses on the interaction between maturational processes and environmental factors. Critical, analytical written work is the primary means of evaluation. May be offered in Spanish or in a Bilingual Format.

**Transfer Credit:** Transfers to CSU; UC, with limits: ECE 31, 32, 33 or PSYCH 8 combined: maximum credit—1 course. C-ID CDEV 100

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**ECE 32  Child, Family and Community**

3 units; 3 hours Lecture
Prerequisite: ECE 31 or ECE 131.
Corequisite: For sections taught in Spanish or in a Bilingual Format: Concurrent enrollment in an appropriate ESL course or ENGL 255, as indicated by assessment or an ESL prerequisite course.
Recommended Preparation: For sections taught in an English Format: Eligibility for ENGL 100 and READ 100. Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Examines the developing child in a societal context focusing on the interrelationship of family, school and community, emphasizing historical and sociocultural factors. Studies the processes of socialization, identity development and the importance of respectful, reciprocal relationships that support and empower families. May be offered in Spanish or in a Bilingual Format.

**Transfer Credit:** Transfers to CSU; UC, with limits: ECE 31, 32, 33 or PSYCH 8 combined: maximum credit—1 course. C-ID CDEV 110

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**ECE 33  Child Development: School Age and Adolescence**

2 units; 2 hours Lecture
Corequisite: For sections taught in Spanish or in a Bilingual Format: Concurrent enrollment in an appropriate ESL course or ENGL 255, as indicated by assessment or an ESL prerequisite course.
Recommended Preparation: ECE 31 or ECE 131 for sections taught in an English Format: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Covers the major theories of development during school-age and adolescence, focusing on physical, social-emotional, and cognitive development in the context of today's families and society. Studies developmental changes characterizing the transition from childhood to adulthood that require major shifts in how adults think about and interact with school-age children and adolescents. May be offered in Spanish or in a Bilingual Format.

**Transfer Credit:** Transfers to CSU; UC, with limits: ECE 31, 32, 33 & PSYCH 8 combined: maximum credit—1 course.

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**ECE 34  Observation and Assessment Methods in Early Childhood Education**

3 units; 3 hours Lecture
Prerequisite: ECE 31 or ECE 131.
Corequisite: For sections taught in Spanish or in a Bilingual Format: Concurrent enrollment in an appropriate ESL course or ENGL 255, as indicated by assessment or an ESL prerequisite course.
Recommended Preparation: For sections taught in an English Format: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Uses observation and assessment to document development and learning, promote children's success and maintain quality programs in collaboration with families and ECE professionals. Explores recording strategies, rating systems, documentation portfolios and various assessment methods. May be offered in Spanish or in a Bilingual Format.

**Transfer Credit:** Transfers to CSU. C-ID ECE 200

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**ECE 51  Principles of Working with Young Children**

3 units; 3 hours Lecture
Prerequisite: ECE 31 or ECE 131.
Corequisite: For sections taught in Spanish or in a Bilingual Format: Concurrent enrollment in an appropriate ESL course or ENGL 255, as indicated by assessment or an ESL prerequisite course.
Recommended Preparation: For sections taught in an English Format: Eligibility for ENGL 100 and READ 100. Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Studies developmentally appropriate practices emphasizing the key role of relationships, constructive adult-child interactions, and teaching strategies supporting comprehensive development of all children. Includes review of historical roots of early childhood programs. Assignments assume access to young children in group settings. May be offered in Spanish or in a Bilingual Format.

**Transfer Credit:** Transfers to CSU. C-ID ECE 120

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**ECE 52  Teaching in a Diverse Society**

3 units; 3 hours Lecture
Prerequisite: ECE 32 or ECE 142.
Recommended Preparation: ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Examines the development of social identities in diverse societies including theoretical and practical implications of oppression and privilege on children, families, programs, classrooms and teaching. 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.

**Transfer Credit:** Transfers to CSU. C-ID ECE 230
ECE 53  Introduction to Curriculum for the Young Child
3 units; 3 hours Lecture
Corequisite: ECE 53L For sections taught in Spanish or in a Bilingual Format: Concurrent enrollment in an appropriate ESL course or ENGL 255, as indicated by assessment or an ESL prerequisite course. Recommended Preparation: For sections taught in an English Format: Eligibility for ENGL 100 and READ 100. Repeatability: May be taken 1 time.
Focuses on knowledge and skills for creating developmentally appropriate curriculum and environments for children through age 6 emphasizing essential role of play and sensory learning. Examines teacher’s role in the development of language and literacy, social and emotional skills, creativity, math and science. May be offered in Spanish or in a Bilingual Format.
Transfer Credit: Transfers to CSU. C-ID ECE 130

ECE 53L  Curriculum Materials Lab
0.5 unit; 1 hour Laboratory
Prerequisite: ECE 53 or ECE 54.
Corequisite: ECE 53.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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
4 units; 1 hour Lecture, 9 hours Laboratory
Prerequisite: ECE 31 or ECE 131.
Recommended Preparation: COMM 6; Eligibility for ENGL 100 and READ 100. Hybrid Requisite: Completion of or concurrent enrollment in ECE 51 and ECE 53.
Repeatability: May be taken 1 time.
Supports supervised student teaching exploring connections between theory and practice using child-centered, play-oriented approaches to teaching, learning and assessment, and building healthy, caring relationships. Includes design, implementation and evaluation of learning experiences for all young children. Focuses on the competencies of the California Child Development Permit.
Transfer Credit: Transfers to CSU. C-ID ECE 210

ECE 54L  Early Childhood Education Practicum Lab
1 - 3 units; 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100. Hybrid Requisite: Completion of or concurrent enrollment in ECE 54.
Repeatability: May be taken 1 time.
Supports demonstration of developmentally appropriate early childhood teaching under guided supervision based on the Associate Teacher level competencies for the California Child Development Permit.
Transfer Credit: Transfers to CSU.

ECE 59  Health, Safety, and Nutrition Issues in the Child Care Setting
3 units; 3 hours Lecture
Corequisite: ECE 159L or current CPR and First Aid Certification by the American Red Cross. For sections taught in Spanish or in a Bilingual Format: Concurrent enrollment in an appropriate ESL course or ENGL 255, as indicated by assessment or an ESL prerequisite course. Recommended Preparation: For sections taught in an English Format: Eligibility for ENGL 100 and READ 100. Repeatability: May be taken 1 time.
Teaches essential information and skills regarding the health, safety and nutritional needs of young children including relevant regulations, standards, policies and procedures. Emphasizes collaboration with families, health professionals and agencies. Appropriate for teachers, childcare providers, parents, foster parents and others who care for young children. May be offered in Spanish or in a Bilingual Format.
Transfer Credit: Transfers to CSU. C-ID ECE 220

ECE 128  Intermediate Child Care Practicum
2 - 3 units; 6 hours Laboratory
Prerequisite: ECE 54 or equivalent skills.
Recommended Preparation: ECE 34 ECE 135; Eligibility for ENGL 100 and READ 100. Hybrid Requisite: Completion of or concurrent enrollment in ECE 158.
Repeatability: May be taken 1 time.
Offers supervised field experience for students who have completed one semester of the Early Childhood Education Practicum.

ECE 131  Child Growth and Development
3 units; 3 hours Lecture
Corequisite: For sections taught in Spanish or in a Bilingual Format: Concurrent enrollment in an appropriate ESL or ENGL course as indicated by assessment or completion of ESL or ENGL prerequisite course. Recommended Preparation: ESL 201A SPAN 16 For sections taught in an English Format: Eligibility for ENGL 100 and READ 100. Repeatability: May be taken 1 time.
Examines the major physical, psychosocial, and cognitive/language developmental milestones for children from conception through adolescence with an emphasis on non-judgmental observation. Focuses on the interaction between maturational processes and environmental factors. Critical, analytical written work is the primary means of evaluation. May be offered in Spanish or in a Bilingual Format.

ECE 132  Ages and Stages: An Overview of Early Childhood Development
1 - 2 units; 1 hour Lecture
Corequisite: For sections taught in Spanish or in a Bilingual Format: Concurrent enrollment in an appropriate ESL course or ENGL 255, as indicated by assessment or an ESL prerequisite course. Recommended Preparation: For sections taught in an English Format: Eligibility for ENGL 100 and READ 100. Repeatability: May be taken 1 time.
Introduces the development of children from birth through age six in a context appropriate for families, foster parents, childcare providers, and beginning ECE students. May be offered in Spanish or in a Bilingual Format.
ECE 133  Understanding Infant Development
1 - 3 units; 1 hour Lecture
Corequisite: For sections taught in Spanish or in a Bilingual Format: Concurrent enrollment in an appropriate ESL course or ENGL 255, as indicated by assessment or an ESL prerequisite course.
Recommended Preparation: For sections taught in an English Format: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Examines the cognitive, language, physical, and social/emotional development of infants and how development is supported through relationships and attachment with their family and caregivers. May be offered in Spanish or in a Bilingual Format.

ECE 134  Understanding Toddler Development
1 - 3 units; 1 hour Lecture
Corequisite: For sections taught in Spanish or in a Bilingual Format: Concurrent enrollment in an appropriate ESL course or ENGL 255, as indicated by assessment or an ESL prerequisite course.
Recommended Preparation: ECE 135 For sections taught in an English Format: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Examines the cognitive, language, physical, and social/emotional development of toddlers and how development is supported through relationships and attachment with their family and caregivers. Focus on how toddlers construct knowledge, learn language and culture, develop relationships, emotional self-regulation and autonomy. May be offered in Spanish or in a Bilingual Format.

ECE 134C  Curriculum with Toddlers
1 - 3 units; 1 hour Lecture
Corequisite: For sections taught in Spanish or in a Bilingual Format: Concurrent enrollment in an appropriate ESL course or ENGL 255, as indicated by assessment or an ESL prerequisite course.
Recommended Preparation: ECE 31 or ECE 131 and/or current experience as a caregiver for infants and toddlers; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Focuses on principles and practices for planning, implementing, observing, documenting, and evaluating curriculum for young children between the ages of 10 and 36 months. Teaches how to design curriculum to expand toddler’s own creative ideas and support their physical, sensory, cognitive, language, emotional, and social development. Introduces principles for preparing the environment and activities to include large and small motor set-ups. May be offered in Bilingual Spanish/English Format.

ECE 134E  Nurturing Environments for Infants and Toddlers
0.5 - 3 units; 0.5 hour Lecture
Corequisite: For sections taught in Spanish or in a Bilingual Format: Concurrent enrollment in an appropriate ESL course or ENGL 255, as indicated by assessment or an ESL prerequisite course.
Recommended Preparation: ECE 31 or ECE 131 and/or current experience as a caregiver for infants and toddlers; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Studies the creation of a safe, stimulating, accessible, developmentally appropriate, child-centered environments for infants and toddlers in group care settings. May be offered in a Bilingual Spanish/English Format.

ECE 134SN  Infants and Toddlers with Special Needs in the Childcare Program
1 - 2 units; 1 hour Lecture
Corequisite: For sections taught in Spanish or in a Bilingual Format: Concurrent enrollment in an appropriate ESL course or ENGL 255, as indicated by assessment or an ESL prerequisite course.
Recommended Preparation: ECE 31 or ECE 131; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Examines issues and practices that support caregivers and families in creating an inclusive program for infants and toddlers with special needs. May be offered in a Bilingual Spanish/English Format.

ECE 135  Infant and Toddler Program Development
4 units; 4 hours Lecture
Prerequisite: ECE 31 or ECE 131.
Corequisite: For sections taught in Spanish or in a Bilingual Format: Concurrent enrollment in an appropriate ESL course or ENGL 255, as indicated by assessment or an ESL prerequisite course.
Recommended Preparation: For sections taught in an English Format: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Teaches principles for planning developmentally appropriate and culturally responsive group care of infants and toddlers to promote cognitive, language, social/emotional, and physical 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, partnerships with families, and inclusion of children with special needs. May be offered in Spanish or in a Bilingual Format.

ECE 137A  Parents in the Cabrillo Children's Center: Focus on Infants and Toddlers
0.5 unit; 1 hour Laboratory
Recommended Preparation: ECE 133; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Teaches principles of child development for parents of children enrolled in Cabrillo College’s Children’s Center, focusing on developmental stages of children from five-months to three-years of age. Open entry/open exit. Students may register through the 12th week.

ECE 137B  Parents in the Cabrillo Children's Center: Focus on Preschoolers
0.5 unit; 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Teaches principles of child development for parents of children enrolled in Cabrillo College’s Children’s Center, focusing on developmental stages of children from three to five years of age. Open entry/open exit. Students may enroll through the 12th week.
ECE 137C Parents in the Cabrillo Children’s Center: Advanced Seminar
0.5 unit; 1 hour Laboratory
Prerequisite: ECE 137A or ECE 137B.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Reviews principles of child development and guidance strategies for parents of children enrolled in Cabrillo College’s Children’s Center, focusing on advanced topics. Open entry/open exit. Students may register through the 12th week.

ECE 138A Communication and Positive Discipline with 2- to 5-Year Olds
1 - 3 units; 1 hour Lecture
Corequisite: For sections taught in Spanish or in a Bilingual Format: Concurrent enrollment in an appropriate ESL course or ENGL 255, as indicated by assessment or an ESL prerequisite course.
Recommended Preparation: For sections taught in an English Format: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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 be offered in a Bilingual Spanish/English Format.

ECE 139AZ Special Topics in Infant/Toddler Development and Care
0.5 - 3 units; 0.5 hour Lecture
Corequisite: For sections taught in Spanish or in a Bilingual Format: Concurrent enrollment in an appropriate ESL course or ENGL 255, as indicated by assessment or an ESL prerequisite course.
Recommended Preparation: For sections taught in an English Format: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Provides intensive study of some aspect of infant and/or toddler development for families and for teachers and caregivers in childcare programs. Course content will vary with each offering, as will prerequisites. May be offered in Spanish or in a Bilingual Format.

ECE 142 Niño, familia, y comunidad
3 units; 3 hours Lecture
Prerequisite: ECE 31 or ECE 131.
Corequisite: For sections taught in Spanish or in a Bilingual Format: Concurrent enrollment in an appropriate ESL course or ENGL 255, as indicated by assessment or an ESL prerequisite course.
Recommended Preparation: For sections taught in an English Format: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Examines the developing child in a societal context focusing on the interrelationship of family, school and community, emphasizing historical and sociocultural factors. Studies the processes of socialization, identity development and the importance of respectful, reciprocal relationships that support and empower families. May be offered in Spanish or in a Bilingual Format.

ECE 144C Early Literacy Foundations for Preschool Children
3 units; 3 hours Lecture
Prerequisite: ECE 31 or ECE 131 and ECE 51 and ECE 53 and Currently working as a teacher/caregiver in a program for preschool children.
Corequisite: For sections taught in Spanish or in a Bilingual Format: Concurrent enrollment in an appropriate ESL course or ENGL 255, as indicated by assessment or an ESL prerequisite course.
Recommended Preparation: For sections taught in an English Format: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Provides intensive study of some aspect of infant and/or toddler development for families and for teachers and caregivers in childcare programs. Course content will vary with each offering, as will prerequisites. May be offered in Spanish or in a Bilingual Format.

ECE 145 Peace Education and Children's Literature
1 - 3 units; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Studies children’s literature as a path to peace education for young children. Focuses on the six strands of peace education: knowledge of self and connection to others; joy in human diversity; love and care of nature; imagination and delight; creative conflict resolution and sense of justice; 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.
Corequisite: For sections taught in Spanish or in a Bilingual Format: Concurrent enrollment in an appropriate ESL course or ENGL 255, as indicated by assessment or an ESL prerequisite course.
Recommended Preparation: For sections taught in an English Format: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Examines issues and practices that support all children, teachers, and families in creating an inclusive program for children with special needs. May be offered in Spanish or in a Bilingual Format.

ECE 156A Curriculum for the Young Child: Life Science
1 - 3 units; 1 hour Lecture
Corequisite: For sections taught in Spanish or in a Bilingual Format: Concurrent enrollment in an appropriate ESL course or ENGL 255, as indicated by assessment or an ESL prerequisite course.
Recommended Preparation: ECE 31 or ECE 131 and ECE 53 For sections taught in an English Format: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Studies developmentally appropriate practices in planning a life science curriculum for young children. May be offered in Spanish or in a Bilingual Format.
ECE 156B  **Curriculum for the Young Child: Physical Science**
1 - 3 units; 1 hour Lecture
Corequisite: For sections taught in Spanish or in a Bilingual Format: Concurrent enrollment in an appropriate ESL course or ENGL 255, as indicated by assessment or an ESL prerequisite course.
Recommended Preparation: ECE 31 or ECE 131 and ECE 53 For sections taught in an English Format: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Studies developmentally appropriate practices for creating a curriculum for young children around the basic elements of the physical world. May be offered in Spanish or in a Bilingual Format.

ECE 156C  **Curriculum for the Young Child: Social Knowledge**
1 - 3 units; 1 hour Lecture
Corequisite: For sections taught in Spanish or in a Bilingual Format: Concurrent enrollment in an appropriate ESL course or ENGL 255, as indicated by assessment or an ESL prerequisite course.
Recommended Preparation: ECE 31 or ECE 131 and ECE 53 and For sections taught in an English Format: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Explores young children's social knowledge and their emerging understanding of self-concept and of human, cultural and linguistic diversity. May be offered in Spanish or in a Bilingual Format.

ECE 156D  **Large Motor and Movement Curriculum**
1 - 3 units; 1 hour Lecture
Corequisite: For sections taught in Spanish or in a Bilingual Format: Concurrent enrollment in an appropriate ESL course or ENGL 255, as indicated by assessment or an ESL prerequisite course.
Recommended Preparation: ECE 31 or ECE 131 and ECE 53 and For sections taught in an English Format: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Studies movement and large motor activities appropriate for the development of young children's coordination and sense of rhythm. Explores use of classroom and the outdoors as environments for large motor development. May be offered in Spanish or in a Bilingual Format.

ECE 156E  **Exploring Music with the Young Child**
1 - 3 units; 1 hour Lecture
Corequisite: For sections taught in Spanish or in a Bilingual Format: Concurrent enrollment in an appropriate ESL course or ENGL 255, as indicated by assessment or an ESL prerequisite course.
Recommended Preparation: ECE 31 or ECE 131 and ECE 53 and For sections taught in an English Format: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Studies developmentally appropriate practices for incorporating music into the curriculum for young children including singing, chanting, and making music. Appropriate for teachers, caregivers, and parents. May be offered in Spanish or in a Bilingual Format.

ECE 156F  **Circle Time Activities**
1 - 3 units; 1 hour Lecture
Corequisite: For sections taught in Spanish or in a Bilingual Format: Concurrent enrollment in an appropriate ESL course or ENGL 255, as indicated by assessment or an ESL prerequisite course.
Recommended Preparation: ECE 31 or ECE 131 and ECE 53 and For sections taught in an English Format: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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 offered in Spanish or in a Bilingual Format.

ECE 156G  **Cooking Curriculum for Young Children**
1 - 3 units; 1 hour Lecture
Corequisite: For sections taught in Spanish or in a Bilingual Format: Concurrent enrollment in an appropriate ESL course or ENGL 255, as indicated by assessment or an ESL prerequisite course.
Recommended Preparation: ECE 31 or ECE 131 and ECE 53 and For sections taught in an English Format: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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 offered in Spanish or in a Bilingual Format.

ECE 156H  **Superhero and Weapon Play**
1 - 3 units; 1 hour Lecture
Corequisite: For sections taught in Spanish or in a Bilingual Format: Concurrent enrollment in an appropriate ESL course or ENGL 255, as indicated by assessment or an ESL prerequisite course.
Recommended Preparation: ECE 31 or ECE 131 and ECE 53 and/or current experience working with preschool-age children; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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 in play. Studies strategies for guiding play while emphasizing positive aspects and guidance of superhero and weapon play. May be offered in Bilingual Spanish/English Format.
ECE 156K  Exploring Art with the Young Child
1 - 3 units; 1 hour Lecture
Corequisite: For sections taught in Spanish or in a Bilingual Format: Concurrent enrollment in an appropriate ESL course or ENGL 255, as indicated by assessment or an ESL prerequisite course.
Recommended Preparation: ECE 31 or ECE 131 and ECE 53 and For sections taught in an English Format: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Studies the developmental sequence of children’s art and the teaching implications of exploring various art media with young children two to five years of age. Focuses on using clay, watercolor, tempera, drawing materials, block printing, and collage. Designed for preschool teachers and parents. May be offered in Spanish or in a Bilingual Format.

ECE 156L  Fostering First and Second Language Development
1 - 3 units; 1 hour Lecture
Corequisite: For sections taught in Spanish or in a Bilingual Format: Concurrent enrollment in an appropriate ESL course or ENGL 255, as indicated by assessment or an ESL prerequisite course.
Recommended Preparation: ECE 31 or ECE 131 and ECE 53 and For sections taught in an English Format: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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 on the impact of partnerships between school and family on children’s language development and sense of self. May be offered in Spanish or in a Bilingual Format.

ECE 156M  Early Literacy Foundations for Young Children
1 - 3 units; 1 hour Lecture
Prerequisite: Currently working as a teacher/caregiver in a licensed program for children birth through age five.
Corequisite: For sections taught in Spanish or in a Bilingual Format: Concurrent enrollment in an appropriate ESL course or ENGL 255, as indicated by assessment or an ESL prerequisite course.
Recommended Preparation: ECE 31 or ECE 131 and ECE 53 and For sections taught in an English Format: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Presents teaching strategies to help children, infancy to age five, develop emergent literacy skills. Applies developmental principles in linguistically and culturally responsive teacher interactions and in literacy-rich environmental design. May be offered in Spanish or in a Bilingual Format.

ECE 156N  Early Math Foundations for Young Children
1 - 3 units; 1 hour Lecture
Corequisite: For sections taught in Spanish or in a Bilingual Format: Concurrent enrollment in an appropriate ESL course or ENGL 255, as indicated by assessment or an ESL prerequisite course.
Recommended Preparation: ECE 31 or ECE 131 and ECE 53 and For sections taught in an English Format: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Studies developmentally appropriate practices for creating curriculum for young children to promote logical-mathematical thinking and math concept formation. May be offered in Spanish or in a Bilingual Format.

ECE 157A  Administration and Supervision of Children’s Programs
3 units; 3 hours Lecture
Prerequisite: Completion of ECE core units (ECE 32 or 142; ECE 51 and ECE 53) or Associate Teacher Child Development Permit and one year teaching experience.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Presents an overview of quality programs for children, emphasizing: 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 ECE core units (ECE 32 or 142; ECE 51 and ECE 53) or Associate Teacher Child Development Permit and one year teaching experience.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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 ECE core units (ECE 32 or 142; ECE 51 and ECE 53) or Associate Teacher Child Development Permit and one year teaching experience.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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
Corequisite: For sections taught in Spanish or in a Bilingual Format: Concurrent enrollment in an appropriate ESL course or ENGL 255, as indicated by assessment or an ESL prerequisite course.
Recommended Preparation: For sections taught in an English Format: Eligibility for ENGL 100 and READ 100.
Hybrid Requisite: Completion of or concurrent enrollment in ECE 51.
Repeatability: May be taken 1 time.
Focusses on building strong partnerships between teachers and families using the family-centered care model. Family-centered care emphasizes: 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 communication. Also appropriate for family childcare providers. May be offered in Spanish or in a Bilingual Format.

ECE 159L  Health Guidelines, First Aid, and CPR in the Child Care Setting
0.5 unit; 1 hour Laboratory
Corequisite: ECE 59 and For sections taught in Spanish or in a Bilingual Format: Concurrent enrollment in an appropriate ESL course or ENGL 255, as indicated by assessment or an ESL prerequisite course.
Recommended Preparation: For sections taught in an English Format: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Provides hands-on training for parents, teachers, and caregivers in infant, child, and adult CPR and first aid for certification by the American Red Cross. May be offered in Spanish or in a Bilingual Format.

ECE 161AZ  Child Development and Interaction Skills in Early Childhood
0.5 - 3 units; 0.5 hour Lecture
Corequisite: For sections taught in Spanish or in a Bilingual Format: Concurrent enrollment in an appropriate ESL course or ENGL 255, as indicated by assessment or an ESL prerequisite course.
Recommended Preparation: ECE 31 or ECE 131 For sections taught in an English Format: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Offers a series of courses on selected aspects of child development with an emphasis on interaction, communication, and guidance skills for those who care for young 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 Spanish or in a Bilingual Format.

ECE 162A-Z  Curriculum Development in Programs for Young Children
0.5 - 4 units; 0.5 hour Lecture
Corequisite: For sections taught in Spanish or in a Bilingual Format: Concurrent enrollment in an appropriate ESL course or ENGL 255, as indicated by assessment or an ESL prerequisite course.
Recommended Preparation: ECE 31 or ECE 131 Current experience as a caregiver for children; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 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, early literacy, science, art, and health. Appropriate for teachers and caregivers in childcare programs. May be offered in a Bilingual Spanish/English Format.

ECE 163  Advanced Curriculum for the Young Child
2 - 3 units; 2 hours Lecture
Prerequisite: ECE 31 or ECE 131 and ECE 53 and ECE 53L
Corequisite: For sections taught in Spanish or in a Bilingual Format: Concurrent enrollment in an appropriate ESL course or ENGL 255, as indicated by assessment or an ESL prerequisite course.
Recommended Preparation: For sections taught in an English Format: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Explores theoretical and practical considerations for developing integrated and emergent curriculum inspired by Reggio Emilia programs and aligned with early learning content, standards and assessments. May be offered in Spanish or in a Bilingual Format.

ECE 168  Advanced Child Care Practicum
2 - 4 units; 6 hours Laboratory
Prerequisite: ECE 54 or ECE 128.
Recommended Preparation: ECE 34 ECE 135; Eligibility for ENGL 100 and READ 100.
Hybrid Requisite: Completion of or concurrent enrollment in ECE 158.
Repeatability: May be taken 1 time.
Offers advanced instruction and support for interns or experienced teachers engaged in supervised field experience at designated child development programs.

ECE 230  Basic Skills of Preparing Child Observations and Assessments
0.5 unit; 1 hour Laboratory
Corequisite: For sections taught in Spanish or in a Bilingual Format: Concurrent enrollment in an appropriate ESL course or ENGL 255, as indicated by assessment or an ESL prerequisite course.
Recommended Preparation: For sections taught in an English Format: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Teaches practical approaches for child observation and assessment, developing writing skills necessary for documenting observations, interviews, child studies or family history papers. May be offered in Spanish or in a Bilingual Format.
**ECONOMICS**

**Human Arts and Social Sciences Division**

Isabel O’Connor, Division Dean  
Division Office, Room 420  
Rory O’Brien, Program Chair, (831) 479-6443  
Aptos Counselor: (831) 479-6274 for appointment  
Watsonville Counselor: (831) 786-4734  
Call (831) 479-6297 for more information

http://www.cabrillo.edu/programs

### Economics A.A. Degree

#### Program Description:

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

An Associate Degree requires 60 units appropriate to your educational goal, to include general education and at least 18 units in a major. Courses should be selected to meet the lower-division major preparation requirements at your intended transfer university—these specific requirements can be found at www.assist.org for 4-year public institutions in California. Please see a counselor for advisement to ensure you are taking the best possible courses given your goal.

The department presents the following suggested model program for this major. The courses listed below may or may not be appropriate depending on your specific goal. Please see a counselor for advisement for transfer to any 4-year institution.

<table>
<thead>
<tr>
<th>Economics A.A. Degree</th>
<th>30 Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A.A. General Education</strong></td>
<td></td>
</tr>
<tr>
<td>Core Courses (15-21 Units)</td>
<td>15-21 Units</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>and MATH 18</td>
<td>Business Calculus</td>
</tr>
<tr>
<td>or MATH 5A</td>
<td>Analytic Geometry and Calculus I</td>
</tr>
<tr>
<td>and MATH 5B</td>
<td>Analytic Geometry and Calculus II</td>
</tr>
<tr>
<td>MATH 12</td>
<td>Elementary Statistics</td>
</tr>
<tr>
<td>or MATH 12H</td>
<td>Honors Elementary Statistics</td>
</tr>
<tr>
<td>or BUS 9</td>
<td>Business Statistics</td>
</tr>
<tr>
<td>Plus one course chosen from the following: (3-5 Units)</td>
<td>3-5 Units</td>
</tr>
<tr>
<td>ACCT 1A</td>
<td>Financial Accounting</td>
</tr>
<tr>
<td>ACCT 1B</td>
<td>Managerial Accounting</td>
</tr>
<tr>
<td>ANTHR 2</td>
<td>Introduction to Anthropology: Cultural</td>
</tr>
<tr>
<td>BUS 18</td>
<td>Business Law</td>
</tr>
<tr>
<td>ES 10</td>
<td>Introduction to Environmental Science</td>
</tr>
<tr>
<td>FIN 10</td>
<td>Introduction to Investments</td>
</tr>
<tr>
<td>GEOG 2</td>
<td>Cultural Geography</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>PSYCH 1</td>
<td>General Psychology</td>
</tr>
<tr>
<td>or PSYCH 1H</td>
<td>Honors General Psychology</td>
</tr>
<tr>
<td>PSYCH 6</td>
<td>Introduction to Social Psychology</td>
</tr>
<tr>
<td>PSYCH 12</td>
<td>Introduction to Cognitive Psychology</td>
</tr>
<tr>
<td>SOC 1</td>
<td>Introduction to Sociology: Understanding Society</td>
</tr>
<tr>
<td>or SOC 1H</td>
<td>Honors Introduction to Sociology: Understanding Society</td>
</tr>
<tr>
<td>SOC 2</td>
<td>Contemporary Social Problems</td>
</tr>
<tr>
<td>or SOC 2H</td>
<td>Honors Contemporary Social Problems</td>
</tr>
<tr>
<td><strong>Electives:</strong></td>
<td></td>
</tr>
<tr>
<td>(Any Course Numbered 1-99)</td>
<td>5-12</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td>60</td>
</tr>
</tbody>
</table>
Economics Courses

ECON 1A  Introduction to Macroeconomics
3 units; 3 hours Lecture
Prerequisite: MATH 154 or equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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; UC.

ECON 1B  Introduction to Microeconomics
3 units; 3 hours Lecture
Prerequisite: MATH 154 or equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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; UC.

EDUCATION

Human Arts and Social Science
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Liberal Studies website: www.cabrillo.edu/ls
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 786-4734
Call (831) 479-6297 for more information

Liberal Studies (for Elementary School Teaching) A.A. Degree

Program Description:
Information for Education Majors Multiple Subject Credential Programs for Elementary School Teaching: Elementary (Multiple Subject) Teaching Credentials authorize the holder to teach in self-contained classrooms such as classroom settings 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). In addition, the holder of a Multiple Subject Teaching Credential may serve in a core or team teaching setting. For more information: http://www.ctc.ca.gov/credentials/requirements.html

Economics Courses

ECON 1A  Introduction to Macroeconomics
3 units; 3 hours Lecture
Prerequisite: MATH 154 or equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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; UC.

ECON 1B  Introduction to Microeconomics
3 units; 3 hours Lecture
Prerequisite: MATH 154 or equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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; UC.

Education Specialist Credential Programs

Special Education (Education Specialist Instruction) Credentials authorize the holder to teach in the disability areas of specialization such as Mid/Moderate Disabilities, Moderate/Severe Disabilities, Deaf and Hard of Hearing, Visual Impairments, Physical and Health Impairment, and Early Childhood Special Education. One or more of the authorizations may be listed on the document for service in the following settings: Special day classes, Special schools, Home/hospital settings, Correctional facilities, Nonpublic schools and agencies, Resource rooms.
For more information http://www.ctc.ca.gov/credentials/requirements.html

Liberal Studies 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 the courses that enable a student to transfer to a CSU campus completing the common lower division transfer pattern for the Liberal Studies (teacher prep) Major. 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. Please see the Cabrillo College Teacher Education web page for more information: http://www.cabrillo.edu/academics/education/

MODEL PROGRAM FOR TRANSFER IN LIBERAL STUDIES

Core Courses plus General Education 60-Units

Core Courses
EDUC 80  American Education in a Changing World ............ 3
CSU Statewide Lower Division Transfer Pattern for Multiple Subject Credential Programs Area A1, A2, A3
COMM 1  Public Speaking ........................................... 3
or
COMM 1H  Honors Public Speaking ................................. 3
ENGL 1A/1AH/1AMC/1AMCH .................................. 3
ENGL 2  Composition and Critical Thinking ...................... 3
or
ENGL 2H  Honors Composition and Critical Thinking .......... 3
or
ENGL 2MC  Composition and Critical Thinking: Multicultural Emphasis ........................................... 3
or
ENGL 2MCH  Honors Composition and Critical Thinking: Multicultural Emphasis ................................. 3
or
PHILO 49  Introduction to Critical Thinking ...................... 3

Area B1
Area B1: A course in Survey of Chemistry and Physics and a course in Survey of Earth Science (no equivalent course at Cabrillo College).

Area B2
BIO 11A  General Biology .......................................... 4

Area B3
BIO 11A  General Biology .......................................... 0
Area B4
MATH 10 Survey of College Mathematics ............... 3
or
MATH 12 Elementary Statistics ......................... 5
or
MATH 12H Honors Elementary Statistics ............ 5
MATH 15 Number Systems ............................ 3

Area C1
AH 77 Correlation of the Arts .............................................. 3
or
MUS 77 Correlation of the Arts .............................................. 3

Area C2
A survey course in literature that has either a cultural or geographic
scope and that covers multiple genres (for example, fiction, poetry, cre-
ative non-fiction.) Any Literature course on the GE lists available in the
College Catalog with a # symbol indicate multicultural offerings.
HIST 2A World History to 1500 .......................... 3

Area D
HIST 17A *United States History to 1865 ............. 3
or
HIST 17AH *Honors United States History to 1865 .... 3
or any other U.S. History course*
PS 1 *Introduction to Government .......................... 3
or
PS 1H *Honors Introduction to Government ................. 3
GEOG 4 World Regional Geography .................. 3

Area E
ECE 31 Child Growth and Development ............. 3

Total Units 60

Note: Total Semester Units Required for Statewide LDTP Pattern is 46
units. The remaining 14+ units are to be selected from campus specific
requirements. Please see a counselor for assistance in determining the
campus specific requirements for this major.

*These courses will satisfy 6 units in GE-Breadth Area D and the CSU
graduation requirements in United States History, Constitution and
American Ideals.

Education Courses

EDUC 80 American Education in a Changing
World
3 units; 2 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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 philos-
ophies, learning theory, curriculum and diversity in today’s classroom. A
Service Learning component will be incorporated into the course. Some
of the class hours for this course may be scheduled as To Be Arranged
(TBA). See the Schedule of Classes for the details about this course
offering.
Transfer Credit: Transfers to CSU; UC.

EDUC 120AZ Special Topics in Education
1 - 3 units; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Analyzes special topics in the field of education, including but not lim-
ited 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
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Watsonville Counselor: (831) 786-4734
Call (831) 479-6328 for more information
www.cabrillo.edu/programs

Engineering A.S. Degree
Program Description:
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 opera-
tions of technical projects related to almost all aspects of modern life,
including the environment, communications, transportation, food pro-
duction, 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

This program has been adopted by the Engineering Liaison Council of the California Intersegmental Council.

This Associate Degree requires 60 units appropriate to your educational goal, to include general education and at least 30 units in a major. Courses should be selected to meet the lower-division major preparation requirements at your intended transfer university—these specific requirements can be found at www.assist.org for 4-year public institutions in California. Please see a counselor for advisement to ensure you are taking the best possible courses given your goal.

The department presents the following suggested model program for this major. The courses listed below may or may not be appropriate depending on your specific goal. Please see a counselor for advisement for transfer to any 4-year institution.

### A.S. General Education

#### Core Courses (39 Units) Units

The following core course is recommended for all potential engineering majors early in their academic career to help determine the field of engineering to pursue.

ENGR 5 Engineering as a Profession .................................. 2

The following Core Courses are required for transfer for all engineering majors.

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 1A</td>
<td>5</td>
<td>General Chemistry I</td>
</tr>
<tr>
<td>ENGR 15</td>
<td>4</td>
<td>† Circuits</td>
</tr>
<tr>
<td>ENGR 25</td>
<td>4</td>
<td>* Graphics and Design</td>
</tr>
<tr>
<td>ENGR 35</td>
<td>3</td>
<td>†† Statics</td>
</tr>
<tr>
<td>ENGR 45</td>
<td>4</td>
<td>††† Engineering Materials</td>
</tr>
<tr>
<td>MATH 5A</td>
<td>5</td>
<td>Analytic Geometry and Calculus I</td>
</tr>
<tr>
<td>MATH 5B</td>
<td>5</td>
<td>Analytic Geometry and Calculus II</td>
</tr>
<tr>
<td>MATH 5C</td>
<td>5</td>
<td>Analytic Geometry and Calculus III</td>
</tr>
<tr>
<td>MATH 7</td>
<td>3</td>
<td>Introduction to Differential Equations</td>
</tr>
<tr>
<td>PHYS 4A</td>
<td>5</td>
<td>Physics for Scientists and Engineers I</td>
</tr>
<tr>
<td>PHYS 4B</td>
<td>5</td>
<td>†† Physics for Scientists and Engineers II</td>
</tr>
<tr>
<td>PHYS 4C</td>
<td>5</td>
<td>† Physics for Scientists and Engineers III</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>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 1B</td>
<td>5</td>
<td>General Chemistry II</td>
</tr>
<tr>
<td>CS 11</td>
<td>4</td>
<td>Introduction to Programming Concepts and Methodology, C++</td>
</tr>
<tr>
<td>CS 19</td>
<td>4</td>
<td>C++ Programming</td>
</tr>
<tr>
<td>ENGR 10</td>
<td>4</td>
<td>†† Surveying</td>
</tr>
<tr>
<td>ENGR 26</td>
<td>2</td>
<td>† Solid Modeling</td>
</tr>
<tr>
<td>MATH 6</td>
<td>3</td>
<td>† Introduction to Linear Algebra</td>
</tr>
<tr>
<td>PHYS 4D</td>
<td>3</td>
<td>††† Modern Physics</td>
</tr>
</tbody>
</table>

Total Units: 60

† spring offering; †† fall offering; ††† fall, even years only

*Not required for electrical and computer engineering majors at most transfer universities.

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### Engineering Courses

#### ENGR 1A  Surveying

4 units; 3 hours Lecture, 5 hours Laboratory
Prerequisite: MATH 3 or high school trigonometry or MATH 4.
Recommended Preparation: ENGR 25 (may be taken concurrently); ENGL 100 or Eligibility for ENGL 1A/1AH/1AMC/1AMCH; Eligibility for READ 100.
Repeatability: May be taken 1 time.

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 directions; differential leveling; traversing; property/boundary surveys; topographic surveys/mapping; volume/earthwork; horizontal and vertical curves; land description techniques; construction applications; and GPS. Extensive field work using tapes, levels, transits, theodolites, total stations, and GPS. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering. Fall semester only.

Transfer Credit: Transfers to CSU; UC.

#### ENGR 3  How Things Work

3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.

Covers how everyday things work and is intended for students in all disciplines. Opportunities are provided for students to experiment with everyday technology in order to discover the principles of science. Mechanical, electrical, biomedical, environmental, and computer systems are explored through experimentation and observation.

Transfer Credit: Transfers to CSU; UC.

#### ENGR 5  Engineering as a Profession

2 units; 2 hours Lecture
Prerequisite: Eligibility for ENGR 1A/1AH/1AMC/1AMCH.
Hybrid Requisite: Completion of or concurrent enrollment in MATH 152.
Recommended Preparation: Eligibility for READ 100.
Repeatability: May be taken 1 time.

Provides information to evaluate the engineering profession as a personal career choice. Explores the branches of engineering, the functions of an engineer, and the industries in which they work. Presents an introduction to the methods of engineering analysis, design and problem solution emphasizing the interface of the engineer with society and engineering ethics. Explains the engineering education process and explores effective strategies for students to reach their full academic potential.

Transfer Credit: Transfers to CSU; UC.
ENGR 10  Engineering Communication  
2 units; 2 hours Lecture, 1 hour Laboratory  
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.  
Recommended Preparation: Eligibility for READ 100.  
Repeatability: May be taken 1 time.  
Develops written, computer and oral communication skills in analyzing 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 computer applications to create and present engineering projects. Fall semester only.  
Transfer Credit: Transfers to CSU; UC, with conditions: In order for transfer credit to be granted for 10, ENGR 5 must also be taken.

ENGR 15  Circuits  
4 units; 3 hours Lecture, 4 hours Laboratory  
Hybrid Requisite: Completion of or concurrent enrollment in MATH 7.  
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH; Eligibility for READ 100.  
Repeatability: May be taken 1 time.  
Analyzes 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 sinusoidal AC steady state circuits. Power and energy analysis is performed throughout the course. Students enrolled in the Honors Transfer Program may count this course towards the "Honors Scholar" designation. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering. Spring semester only.  
Transfer Credit: Transfers to CSU; UC.

ENGR 25  Graphics and Design  
4 units; 3 hours Lecture, 5 hours Laboratory  
Prerequisite: MATH 153 or MATH 2 or MATH 4 or high school geometry.  
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH; Eligibility for READ 100.  
Repeatability: May be taken 1 time.  
Applies principles of engineering drawing in visually communicating engineering designs using freehand sketching, instrument drawing, and computer-aided drafting/design using AutoCAD. Topics include orthographic and pictorial drawings; descriptive geometry; detail and assembly drawings; dimensioning and tolerancing; and scales. Acquire an in-depth understanding of the engineering design process and improve creativity in solving engineering problems. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.  
Transfer Credit: Transfers to CSU; UC.

ENGR 26  Solid Modeling  
2 units; 1 hour Lecture, 4 hours Laboratory  
Prerequisite: ENGR 25.  
Recommended Preparation: ENGL 100 or Eligibility for ENGL 1A/1AH/1AMC/1AMCH; Eligibility for READ 100.  
Repeatability: May be taken 1 time.  
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 documentation packages. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering. Spring semester only.  
Transfer Credit: Transfers to CSU; UC.

ENGR 35  Statics  
3 units; 3 hours Lecture, 1 hour Laboratory  
Prerequisite: PHYS 4A.  
Hybrid Requisite: Completion of or concurrent enrollment in MATH 5C.  
Recommended Preparation: ENGR 25 and ENGL 100 or Eligibility for ENGL 1A/1AH/1AMC/1AMCH; Eligibility for READ 100.  
Repeatability: May be taken 1 time.  
Analyzes 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. Students enrolled in the Honors Transfer Program may count this course towards the "Honors Scholar" designation. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering. Spring semester only.  
Transfer Credit: Transfers to CSU; UC.

ENGR 45  Engineering Materials  
4 units; 3 hours Lecture, 4 hours Laboratory  
Prerequisite: PHYS 4A and CHEM 1A and ENGL 1A/1AH/1AMC/1AMCH.  
Recommended Preparation: ENGR 10 and CHEM 1B and Eligibility for READ 100.  
Repeatability: May be taken 1 time.  
Presents the properties and performance of engineering materials and their relationship to the internal structure of materials. Applies the concepts of material science and engineering in testing materials using laboratory testing equipment. Utilizes analysis techniques in selecting the appropriate materials to meet engineering design criteria. Engineering materials include metals, polymers, ceramics, composites, and semiconductors. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering. Fall semester only.  
Transfer Credit: Transfers to CSU; UC.
classes will vary depending on the subject matter. 

enrolling in computer-based Engineering Technology courses. Please credit to baccalaureate degree granting institutions.

five Skills Certificate options. Additionally, several courses carry transfer credit to baccalaureate degree granting institutions. The structure and format of the classes will vary depending on the subject matter. 

Transfer Credit: Transfers to CSU.

ENGINEERING TECHNOLOGY

Natural and Applied Sciences Division

Wanda Garner, Division Dean
Division Office, Room 701

Gary Marcoccia, Program Chair, (831) 479-5705
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 786-4734
Call (831) 479-6328 for more information
www.cabrillo.info

Engineering Technology A.S. Degree

Program Description:

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 craftsperson. 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 Achievement, as well as five Skills Certificate options. Additionally, several courses carry transfer credit to baccalaureate degree granting institutions.

Note: We strongly recommend CS 1 and CS 1L 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.

Program Learning Outcomes:

1. Demonstrate mastery of an engineering knowledge "base equivalent" to passing an industry level certification exam from such vendors as: AutoDesk, Graphisoft, and PTC. (Global Awareness, Critical Thinking)
2. Develop a portfolio of laboratory reports that demonstrate skills acquired within a particular technology. (Communication, Professional Development)
3. Analyze and troubleshoot electrical circuits and mechanical systems based upon industry protocols and standards. (Critical Thinking)
4. Demonstrate written and verbal communication skills through technical documentation and oral presentations. (Communication, Professional Development, Critical Thinking)

A.S. General Education

Core Courses (27 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>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>Advanced AutoCAD</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 42</td>
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<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 (5 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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</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>Digital Publishing I</td>
<td>3</td>
</tr>
<tr>
<td>DM 4</td>
<td>Digital Graphics</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 141</td>
<td>Intermediate Maya</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 150</td>
<td>ETECH Careers and Employment Preparation</td>
<td>2</td>
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<tr>
<td>ETECH 199C</td>
<td>Career Work Experience Education</td>
<td>0.5-4</td>
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Electives:

<table>
<thead>
<tr>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td>(Any Course numbered 1-199)</td>
<td></td>
<td>7</td>
</tr>
</tbody>
</table>

Total Units | 60 |

Engineering Technology Certificate of Achievement

Program Learning Outcomes:

1. Demonstrate mastery of an engineering knowledge "base equivalent" to passing an industry level certification exam from such vendors as: AutoDesk, Graphisoft, and PTC. (Global Awareness, Critical Thinking)
2. Develop a portfolio of laboratory reports that demonstrate skills acquired within a particular technology. (Communication, Professional Development)
3. Analyze and troubleshoot electrical circuits and mechanical systems based upon industry protocols and standards. (Critical Thinking)

Core Courses (27 units)

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<td>ETECH 41</td>
<td>Advanced AutoCAD</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 42</td>
<td>Computer Aided Manufacturing I</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>
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<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>
One of the following:

ENGL 100 Elements of Writing ........................................ 3
or
ENGL 1A/1AH/1AMC/1AMCH ........................................... 3
or
CABT 157 Business and Technical Writing .......................... 3

Total Units 30

Architecture Drafting and Design Skills Certificate

Program Learning Outcomes:
1. Demonstrate mastery of an architectural knowledge "base equivalent" to obtaining an ADDA certification from American Design Drafting Association. (Global Awareness, Critical Thinking)
2. Design and draft an AEC plan set. (Global Awareness, Professional Development)
3. Troubleshoot and solve design flaws on AEC plan sets. (Critical Thinking)

Required Courses:
ETECH 24 Introduction to AutoCAD ................................ 3
ETECH 60 Architecture I .................................................. 3
ETECH 61 Architecture II ................................................ 3
ETECH 62 Architecture III ............................................... 3

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): Units
CEM 151 Construction Fundamentals: Principles and Practices ........................................ 3
DM 4 Digital Graphics ..................................................... 3
ETECH 110 Civil and Land Development CAD ..................... 3
ETECH 126 3D Solid Modeling and Rendering ....................... 3
ETECH 130 Introduction to Pro/Engineer .............................. 3
ETECH 131 Intermediate Pro/Engineer ................................. 3
ETECH 140 Introduction to Maya ....................................... 3
ETECH 175 ArchiCAD and Sustainable Design Strategies II ...... 3

Total Units 12

*Requires MATH 153 or high school geometry as prerequisite

Computer Aided Drafting and Design Skills Certificate

Program Learning Outcomes:
1. Demonstrate mastery of a Computer Aided Drafting and Design knowledge "base equivalent" to obtaining CADD, ADDA certification from American Design Drafting Association. (Global Awareness, Critical Thinking)
2. CAD draft a complete plan set. (Global Awareness, Professional Development)
3. Troubleshoot and solve design flaws on a plan set. (Critical Thinking)

Required Courses:
ETECH 24 Introduction to AutoCAD ................................. 3
ETECH 41 Advanced AutoCAD ...................................... 3
ETECH 42 *Computer Aided Manufacturing I ..................... 3
ETECH 125 3D Wireframe and Surface Modeling ................... 3

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 prerequisites): Units
DM 2 Digital Publishing I ................................................ 3
DM 4 Digital Graphics ..................................................... 3
ETECH 126 3D Solid Modeling and Rendering ....................... 3
ETECH 130 Introduction to Pro/Engineer .............................. 3
ETECH 131 Intermediate Pro/Engineer ................................. 3

Total Units 12

*Requires Trigonometry as a prerequisite (Fall only)

Civil/Survey Drafting Skills Certificate

Program Learning Outcomes:
1. Demonstrate mastery of a civil/survey knowledge "base equivalent" to obtaining an ADDA Civil certification from American Design Drafting Association. (Global Awareness, Critical Thinking)
2. Design and draft a civil/survey plan set. (Global Awareness, Professional Development)
3. Troubleshoot and solve design flaws on civil/survey plan sets. (Critical Thinking)

Required Courses:
ENGR 1A *Surveying ..................................................... 4
ETECH 24 Introduction to AutoCAD ................................ 3
ETECH 110 Civil and Land Development CAD ..................... 3

Total Units 10

*Requires Trigonometry as a prerequisite (Fall only)

Computer Animation Skills Certificate

Program Learning Outcomes:
1. Demonstrate mastery of an animation knowledge "base equivalent" to obtaining Maya certification from AutoDesk Corp. (Global Awareness, Critical Thinking)
2. Animate a short photorealistic scene. (Global Awareness, Professional Development)
3. Troubleshoot and solve design flaws on an animation. (Critical Thinking)

Required Courses:
ETECH 24 Introduction to AutoCAD ................................ 3
ETECH 126 3D Solid Modeling and Rendering ....................... 3
ETECH 140 Introduction to Maya ....................................... 3
ETECH 141 Intermediate Maya ........................................ 3

If desired, one required Computer Animation course may be replaced with one of the following (listed courses may require the completion of prerequisites): Units
DM 2 Digital Publishing I ................................................ 3
DM 4 Digital Graphics ..................................................... 3
DM 6 Digital Publishing II .............................................. 3
DM 8 Design for Publishing ............................................ 3
ETECH 125 3D Wireframe and Surface Modeling ................... 3
ETECH 130 Introduction to Pro/Engineer .............................. 3
ETECH 131 Intermediate Pro/Engineer ................................. 3

Total Units 12
Manufacturing Specialist Skills Certificate

Program Learning Outcomes:

1. Demonstrate mastery of a manufacturing knowledge "base equivalent" to passing an industry-level certification such as Cypress Siemens Professional Institute Certification. (Global Awareness, Critical Thinking)

2. Analyze existing mechanical systems and identify weaknesses in their configurations. (Critical Thinking, Professional Development)

3. Build simple electrical circuits and mechanical systems based upon industry protocols and standards. (Critical Thinking, Professional Development)

Required Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</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 Units: 12

*CHEM 2 has a prerequisite of MATH 152 (Intermediate Algebra)

Technology and Trades Skills Certificate

Program Learning Outcomes:

1. Demonstrate mastery of a tradesperson's knowledge "base equivalent" to passing an industry-level certification such as Certificate I in Engineering-Fabrication Trade. (Global Awareness, Critical Thinking)

2. Analyze existing mechanical systems and identify weaknesses in their constructions. (Critical Thinking, Global Awareness)

3. Draft and build a simple wood or metal fabrication based upon industry protocols and standards. (Critical Thinking, Professional Development)

Required Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</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>3-1</td>
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<tr>
<td>CS 1L</td>
<td>Technology Tools</td>
<td>2</td>
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<tr>
<td>ENGR 5</td>
<td>Engineering as a Profession</td>
<td>2</td>
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<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>

If desired, one required Technology and Trades course may be replaced with one of the following (listed courses may require the completion of prerequisites):

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETECH 41</td>
<td>Advanced AutoCAD</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 42</td>
<td>Computer Aided Manufacturing I</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 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 and Sustainable Design Strategies II</td>
<td>3</td>
</tr>
<tr>
<td>W 151</td>
<td>Gas and TIG Welding</td>
<td>2</td>
</tr>
</tbody>
</table>

Total Units: 13-15

*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.

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 1 time.

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. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.

Transfer Credit: Transfers to CSU; UC.

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 1 time.

Prepares 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. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.

Transfer Credit: Transfers to CSU.

ETECH 41 Advanced AutoCAD

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 1 time.

Presents a second level AutoCAD and first level mechanical drafting 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, 3D modeling, dimensioning, and an introduction to computer aided manufacturing. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.

Transfer Credit: Transfers to CSU.

ETECH 42 Computer Aided Manufacturing I

3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ETECH 24 or equivalent skills; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Covers the basics of CNC G code program creation/editing in conjunction with the use of CAM software. Includes three-axis milling programming; creating part geometry, defining tools and tool paths, and using post-processors. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.

Transfer Credit: Transfers to CSU.
ETECH 60  Architecture I
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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; UC.

ETECH 61  Architecture II
3 units; 2.5 hours Lecture, 1.5 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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 24 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.
Transfer Credit: Transfers to CSU.

ETECH 75  BIM and Sustainable Design Strategies I
3 units; 2 hours Lecture, 4 hours Laboratory
Recommended Preparation: CABT 106 or equivalent skills; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Introduces multiple industry standard Building Information Modeling (BIM) software programs found in the architecture profession. Focuses on the basic concepts and tools needed to create a 3D virtual architectural model. Also introduces a variety of output capabilities including energy analysis software. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.
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 1 time.
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. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.

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.
Repeatability: May be taken 1 time.
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. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.

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 1 time.
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. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.

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 1 time.
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. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.
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 1 time.  
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. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.

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.  
Repeatability: May be taken 1 time.  
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. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.

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 1 time.  
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. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.

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.  
Repeatability: May be taken 1 time.  
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. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.

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 1 time.  
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. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.

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 1 time.  
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. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.

ETECH 145  ANSI Standards in Mechanical Drafting  
3 units; 2 hours Lecture, 4 hours Laboratory  
Prerequisite: ETECH 24 and ETECH 141 or equivalent skills.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
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. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.

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 1 time.  
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.
The first option listed below is the Associate in Arts in English for Transfer (A.A.-T), which is intended for students who plan to complete a bachelor’s degree in a similar major at a CSU campus. Students completing these degrees are guaranteed admission to the CSU system, but not to a particular campus or major. This degree may not be the best option for students intending to transfer to a particular CSU campus or to a university or college that is not part of the CSU system. See Associate Degree for Transfer information in the Cabrillo College Catalog.

The following is required for all A.A.-T or A.S.-T degrees:
- Completion of 60 CSU-transferable semester units.
- Minimum grade-point average (GPA) of at least 2.0 in all CSU-transferable coursework. While a minimum of 2.0 is required for admission, some majors may require a higher GPA.
- Completion of a minimum of 18 semester units in the major with a letter grade of “C” or better. A “P” grade is not acceptable for courses in the major.
- Certified completion of the California State University General Education-Breadth pattern (CSU GE Breadth) or the Intersegmental General Education Transfer Curriculum (IGETC) pattern.

The second option fulfills requirements for an A.A. Degree in English at Cabrillo College.

### Completion of CSU or IGETC General Education Requirements GE Units

<table>
<thead>
<tr>
<th>Core Courses (6 units)</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1B Composition and Literature</td>
<td>3</td>
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<tr>
<td>or ENGL 1BMC Composition and Literature: Multicultural Emphasis</td>
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<td>and ENGL 2 Composition and Critical Thinking</td>
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<tr>
<td>or ENGL 2H Honors Composition and Critical Thinking</td>
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<td>or ENGL 2MC Composition and Critical Thinking: Multicultural Emphasis</td>
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<tr>
<td>or ENGL 2AMCH Honors Composition and Critical Thinking: Multicultural Emphasis</td>
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</table>

### List A - Select 2 courses from: (6 units) Units

- ENGL 30A American Literature | 3 |
- ENGL 30B American Literature | 3 |
- ENGL 46A Major British Writers | 3 |
- ENGL 46B Major British Writers II | 3 |

### List B - Select 1 course from: (3 units) Units

Any course not used from List A above

- ENGL 12A Creative Writing: Prose | 3 |
- ENGL 12B Creative Writing: Poetry | 3 |
- ENGL 12D Creative Writing: Drama | 3 |
- ENGL 12E Creative Writing: Autobiography | 3 |
- ENGL 12F Introduction to Creative Writing | 3 |
- ENGL 34 Shakespeare | 3 |
- ENGL 41A African American Literature: Slave Narrative to 20th Century | 3 |
- ENGL 41B African American Literature: 20th Century to Present | 3 |
ENGL 48A Mythology and Folklore ..................................... 3
List C - Select 1 course from: (3-5 units) Units
Any course not used from Lists A or B above
or
Any foreign language course
BUS 52 Business Communications ................................. 3
ENGL 12C Creative Writing: Film .................................... 3
ENGL 14A Fiction Workshop ........................................... 3
ENGL 14B Poetry Workshop ............................................ 3
ENGL 14C Screenwriting Workshop ................................. 3
ENGL 14E Autobiography Workshop ............................... 3
ENGL 14F How to Write a Novel ..................................... 3
ENGL 17 Studies in Literary Themes/Types ....................... 1 - 3
ENGL 18 Studies in Individual Writers ............................ 1 - 3
ENGL 20A Children's Literature ..................................... 3
ENGL 20B Children's Literature ..................................... 3
ENGL 23A Reporting for the News Media ......................... 3
JOURN 23A Reporting for the News Media ....................... 3
ENGL 24A Native American Prose and Poetry .................. 3
ENGL 24B Native American Prose and Poetry .................. 3
ENGL 31 The Novel ..................................................... 3
ENGL 32 The Short Story .............................................. 3
ENGL 33 Introduction to Poetry ..................................... 3
ENGL 39 Chicana/o-Latina/o Literature ........................... 3
ENGL 40 Latin American Literature ................................ 3
ENGL 45 World Literature ............................................ 3
ENGL 47 The Literature of the Storyteller ......................... 3
ENGL 49A The Language of Film: Film History ............... 3
ENGL 49B The Language of Film: Special Topics in Film .... 3
TA 9 Appreciation of Theatre Arts ................................. 3

Note: All courses except BUS 52, ENGL 14ABCEF and ENGL/JOURN 23A are also general education courses.
Electives: Units
(Any Course Numbered 1-99) ................................. 3 - 5
Total Units .................................................. 60

English A.A. Degree
Program Description:
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
This Associate Degree requires 60 units appropriate to your educational goal, to include general education and at least 30 units in a major. Courses should be selected to meet the lower-division major preparation requirements at your intended transfer university - these specific requirements can be found at www.alert.org for 4-year public institutions in California. Please see a counselor for advisement to ensure you are taking the best possible courses given your goal.

The department presents the following suggested model program for this major. The courses listed below may or may not be appropriate depending on your specific goal. Please see a counselor for advisement for transfer to any 4-year institution.

A.A. General Education ................................. 30 Units

Core Courses (15-18 Units)
ENGL 1B Composition and Literature ............................. 3
or
ENGL 1BH Honors Composition and Literature .............. 3
or
ENGL 1BMC Composition and Literature: Multicultural Emphasis ............................................ 3

Choose at least two from the following three courses:
ENGL 34 Shakespeare .............................................. 3
ENGL 46A Major British Writers I ................................. 3
ENGL 46B Major British Writers II ............................... 3

Choose at least two from the following seven courses:
ENGL 24A Native American Prose and Poetry ............... 3
ENGL 24B Native American Prose and Poetry ............... 3
ENGL 30A American Literature ................................ 3
ENGL 30B American Literature ................................ 3
ENGL 39 Chicana/o-Latina/o Literature ......................... 3
ENGL 41A African American Literature: Slave Narrative to 20th Century ................................. 3
ENGL 41B African American Literature: 20th Century to Present .............................................. 3

Approved Electives (3-6 Units)
ENGL 12A Creative Writing: Prose ............................... 3
ENGL 12B Creative Writing: Poetry ............................... 3
ENGL 12C Creative Writing: Film ................................. 3
ENGL 12D Creative Writing: Drama ............................. 3
ENGL 12E Creative Writing: Autobiography ................. 3
ENGL 12F Introduction to Creative Writing ................... 3
ENGL 24A Native American Prose and Poetry ............... 3
ENGL 24B Native American Prose and Poetry ............... 3
ENGL 30A American Literature ................................ 3
ENGL 30B American Literature ................................ 3
ENGL 31 The Novel ..................................................... 3
ENGL 32 The Short Story .............................................. 3
ENGL 33 Introduction to Poetry ..................................... 3
ENGL 34 Shakespeare .............................................. 3
ENGL 39 Chicana/o-Latina/o Literature ......................... 3
ENGL 40 Latin American Literature ............................. 3
ENGL 41A African American Literature: Slave Narrative to 20th Century ................................. 3
ENGL 41B African American Literature: 20th Century to Present .............................................. 3

Recommended from Related Disciplines
Many four-year colleges and universities require English majors to study a foreign language. Consult a counselor for specific information about the requirements of the school you plan to attend.
Electives: (Any Course Numbered 1-99) 6–12
Total Units 60

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.
Repeatability: May be taken 1 time.

Emphasizes the expository essay and research paper; readings serve as models and topics for discussion. Students write a minimum of 6,000 words, focusing on clarity and accuracy. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC: Not open to students who have completed ENGL 1A/1AH/1AMC. C-ID ENGL 100

ENGL 1AH Honors College Composition
3 units; 3 hours Lecture
Prerequisite: ENGL 100 and ENGL 100L or ENGL 115; Honors Standing.
Corequisite: LIBR 10.
Repeatability: May be taken 1 time.

Emphasizes the expository essay and research paper; readings serve as models and topics for discussion. Honors section stresses rigorous analytic reading and writing. Students write a minimum of 8,000 words, focusing on clarity and accuracy.
Transfer Credit: Transfers to CSU; UC: Not open to students who have completed ENGL 1AH/1AMC/1AMCH. C-ID ENGL 100

ENGL 1AMC College Composition: Multicultural Emphasis
3 units; 3 hours Lecture
Prerequisite: ENGL 100 and ENGL 100L or ENGL 115.
Corequisite: LIBR 10.
Repeatability: May be taken 1 time.

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.
Transfer Credit: Transfers to CSU; UC: Not open to students who have completed ENGL 1A/1AH/1AMC. C-ID ENGL 100

ENGL 1B Composition and Literature
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Recommended Preparation: LIBR 10 (may be taken concurrently).
Repeatability: May be taken 1 time.

Introduces literature through reading, writing, and discussion to develop critical and analytical skills; satisfies Humanities and Fine Arts requirement for UC/CSU. Students write a minimum of 6,000 words, focusing on literary interpretation and research. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC: Not open to students who have completed ENGL 1B/1BMC. C-ID ENGL 120

ENGL 1BH Honors Composition and Literature
3 units; 3 hours Lecture
Prerequisite: Honors Standing. ENGL 1A/1AH/1AMC/1AMCH with a grade of B or better.
Hybrid Requisite: Completion of or concurrent enrollment in LIBR 10H.
Repeatability: May be taken 1 time.

Introduces literature through reading, writing, and discussion to develop critical and analytical skills; satisfies Humanities and Fine Arts requirement for UC/CSU. Honors section stresses rigorous literary scholarship. Students write a minimum of 8,000 words, focusing on literary interpretation and research. Not open to students who have completed ENGL 1B/1BMC.
Transfer Credit: Transfers to CSU; UC pending review.

ENGL 1BMC Composition and Literature: Multicultural Emphasis
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Recommended Preparation: LIBR 10 (may be taken concurrently).
Repeatability: May be taken 1 time.

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 a minimum of 6,000 words, focusing on literary interpretation and research.
Transfer Credit: Transfers to CSU; UC: Not open to students who have completed ENGL 1B. C-ID ENGL 120
ENGL 1C Advanced Composition
3 units; 3 hours Lecture
Prerequisite: ENGL 1B or ENGL 1BMC or ENGL 2 or ENGL 2H or ENGL 2MC or ENGL 2MCH.
Repeatability: May be taken 1 time.
Focuses on expository and research writing, analytical reading, and critical thinking; reading includes several book-length works. Students write a minimum of 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; UC.

ENGL 2 Composition and Critical Thinking
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH; LIBR 10 (may be taken concurrently).
Recommended Preparation: ENGL 1B/1BH/1BMC.
Repeatability: May be taken 1 time.
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; UC. Not open to students who have completed ENGL 2H/2MC/2MCH. C-ID ENGL 105

ENGL 2H Honors Composition and Critical Thinking
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH; Honors standing.
Recommended Preparation: ENGL 1B/1BH/1BMC; LIBR 10 (may be taken concurrently).
Repeatability: May be taken 1 time.
Develops writing and reading skills for logical reasoning and argumentation; satisfies the IGETC & CSU critical thinking requirements. Honors section stresses rigorous analytic reading and writing and a cross-curricular emphasis. Students write a minimum of 8,000 words.
Transfer Credit: Transfers to CSU; UC. Not open to students who have completed ENGL 2H/2MC/2MCH. C-ID ENGL 105

ENGL 2MC Composition and Critical Thinking: Multicultural Emphasis
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Recommended Preparation: ENGL 1B/1BH/1BMC; LIBR 10 (may be taken concurrently).
Repeatability: May be taken 1 time.
Develops writing and reading skills for logical reasoning and argumentation with a multicultural emphasis. Satisfies the IGETC and CSU critical thinking (ENGL 2) requirements and Cabrillo multicultural requirement. Students write a minimum of 6,000 words.
Transfer Credit: Transfers to CSU; UC. Not open to students who have completed ENGL 2H/2MC/2MCH. C-ID ENGL 105

ENGL 2MCH Honors Composition and Critical Thinking: Multicultural Emphasis
3 units; 3 hours Lecture
Prerequisite: Honors Standing; ENGL 1A/1AH/1AMC/1AMCH.
Recommended Preparation: ENGL 1B/1BH/1BMC; LIBR 10 (may be taken concurrently.)
Repeatability: May be taken 1 time.
Develops writing and reading skills for logical reasoning and argumentation with a multicultural emphasis. Satisfies the IGETC and CSU critical thinking requirements (ENGL 2) and Cabrillo multicultural requirement. Honors section stresses rigorous analytic reading and writing and a cross-curricular emphasis. Students write a minimum of 8,000 words. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC. Not open to students who have completed ENGL 2/2H/2MC. C-ID ENGL 105

ENGL 12A Creative Writing: Prose
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken 1 time.
Teaches techniques of fiction writing using in-class discussion of student writing. Students write, revise, and edit a minimum of 6,000 words, which may include short and long fiction, and reviews and analyses of published fiction.
Transfer Credit: Transfers to CSU; UC. Not open to students who have completed ENGL 12AB/12CD/12EF. C-ID ENGL 105

ENGL 12B Creative Writing: Poetry
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Recommended Preparation: ENGL 1B/1BH/1BMC.
Repeatability: May be taken 1 time.
Teaches techniques of poetry writing using in-class discussion of writing by students and published poets. Students write, revise, and edit a minimum of 6,000 words, which may include short and long poems, and reviews and analyses of poems and poetry readings.
Transfer Credit: Transfers to CSU; UC. Not open to students who have completed ENGL 12AB/12CD/12EF. C-ID ENGL 105

ENGL 12C Creative Writing: Film
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken 1 time.
Teaches techniques of screenwriting using in-class discussion of professional and student screenplays; viewing and analyzing of selected films. Students write, revise, and edit a minimum of 6,000 words.
Transfer Credit: Transfers to CSU; UC. Not open to students who have completed ENGL 12AB/12CD/12EF. C-ID ENGL 105
ENGL 12D  Creative Writing: Drama
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Recommended Preparation: ENGL 1B/1BH/1BMC.
Repeatability: May be taken 1 time.
Teaches techniques of playwriting using in-class discussion of student writing. Students write, revise, and edit a minimum of 6,000 words, which may include short or long plays, and reviews and analyses of dramatic performances.
Transfer Credit: Transfers to CSU; UC, with limits: ENGL 12ABCD maximum credit, 6 units per college.

ENGL 12E  Creative Writing: Autobiography
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken 1 time.
Teaches techniques of autobiography writing using in-class discussion of student writing and of published memoirs. Students write, revise, and edit a minimum of 6,000 words, which may include journals, autobiographies, and reviews and analyses of published autobiographies.
Transfer Credit: Transfers to CSU; UC, with limits: ENGL 12ABCD maximum credit, 6 units per college.

ENGL 12F  Introduction to Creative Writing
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken 1 time.
Teaches techniques and traditions of various creative writing forms, including fiction, poetry, drama, and other genres using in-class discussion of student writing. Students write, revise, and edit a minimum of 6,000 words.
Transfer Credit: Transfers to CSU; UC, with limits: ENGL 12ABCD maximum credit, 6 units per college. C-ID ENGL 200

ENGL 14A  Fiction Workshop
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Recommended Preparation: ENGL 1B/1BH/1BMC.
Repeatability: May be taken 1 time.
Develops fiction writing skills and knowledge in a workshop format through writing, discussion and appropriate reading. Students write, revise, and edit a minimum of 6,000 words, which may include short and long fiction, and reviews and analyses of published prose.
Transfer Credit: Transfers to CSU; UC.

ENGL 14B  Poetry Workshop
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Recommended Preparation: ENGL 1B/1BH/1BMC.
Repeatability: May be taken 1 time.
Develops poetic skills and knowledge in a workshop format through writing, discussion, and appropriate reading. Students write, revise, and edit a minimum of 6,000 words, which may include short and long poems, and reviews and analyses of poems and poetry readings. May focus on a special theme.
Transfer Credit: Transfers to CSU; UC.

ENGL 14C  Screenwriting Workshop
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Recommended Preparation: ENGL 1B/1BH/1BMC.
Repeatability: May be taken 1 time.
Develops screenwriting skills in a workshop format through extensive writing, discussion and script read-throughs. Students write, revise, and edit a minimum of 6,000 words, which may include film treatments and screenplays, and movie reviews and analysis. Uses appropriate reading, viewing and analysis of selected films to augment discussions and critiques.
Transfer Credit: Transfers to CSU; UC.

ENGL 14E  Autobiography Workshop
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Recommended Preparation: ENGL 1B/1BH/1BMC.
Repeatability: May be taken 1 time.
Develops memoir-writing skills and knowledge in a workshop format. Students write, revise, and edit a minimum of 6,000 words, which may include journals, autobiographies, and reviews and analyses of published autobiographies.
Transfer Credit: Transfers to CSU; UC.

ENGL 14F  How to Write a Novel
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Recommended Preparation: ENGL 1B/1BH/1BMC.
Repeatability: May be taken 1 time.
Begins the process of writing a novel, and prepares for completion and publication. Focuses work on elements of genre, structure, voice, plot, characters, and description. Students write, revise, and edit a minimum of 6,000 words.
Transfer Credit: Transfers to CSU; UC.

ENGL 17  Studies in Literary Themes/Types
1 - 3 units; 1 hour Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Recommended Preparation: ENGL 1B/1BH/1BMC.
Repeatability: May be taken 1 time.
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; 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/1AH/1AMC/1AMCH.
Repeatability: May be taken 1 time.
Examines the works of a single writer or a group of related writers.
Transfer Credit: Transfers to CSU; 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/1AH/1AMC/1AMCH.
Repeatability: May be taken 1 time.
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; UC, with limits: ENGL 20A & 20B combined-maximum credit-1 course.

ENGL 20B  Children’s Literature
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken 1 time.
Surveys children’s literature with emphasis on illustration, picture books, poetry and mid-twentieth century authors.
Transfer Credit: Transfers to CSU; UC, with limits: ENGL 20A & 20B combined-maximum credit-1 course.

ENGL 23A  Reporting for the News Media
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Corequisite: JOURN 53.
Repeatability: May be taken 1 time.
Teaches the basics of newsgathering and writing for newspapers and online news websites. Students participate in producing the college newspaper.
Transfer Credit: Transfers to CSU; UC.

ENGL 24A  Native American Prose and Poetry
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken 1 time.
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; UC.

ENGL 24B  Native American Prose and Poetry
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken 1 time.
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; UC.

ENGL 30A  American Literature
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Recommended Preparation: ENGL 1B/1BH/1BMC.
Repeatability: May be taken 1 time.
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; UC.

ENGL 30B  American Literature
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Recommended Preparation: ENGL 1B/1BH/1BMC.
Repeatability: May be taken 1 time.
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; UC. C-ID ENGL 135

ENGL 31  The Novel
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken 1 time.
Emphasizes fictional techniques, the history of the novel, and critical theory through careful reading and analysis of selected novels.
Transfer Credit: Transfers to CSU; UC.

ENGL 32  The Short Story
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken 1 time.
Emphasizes fictional techniques and critical theories based on careful reading of selected short stories.
Transfer Credit: Transfers to CSU; UC.

ENGL 33  Introduction to Poetry
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken 1 time.
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; UC.

ENGL 34  Shakespeare
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Recommended Preparation: ENGL 1B/1BH/1BMC.
Repeatability: May be taken 1 time.
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; UC.
ENGL 39  Chicana/o-Latina/o Literature
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken 1 time.
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; UC.

ENGL 40  Latin American Literature
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken 1 time.
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; UC.

ENGL 41A  African American Literature: Slave Narrative to 20th Century
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken 1 time.
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 garner 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.
Transfer Credit: Transfers to CSU; UC.

ENGL 41B  African American Literature: 20th Century to Present
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken 1 time.
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 garner 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.
Transfer Credit: Transfers to CSU; UC.

ENGL 45  World Literature
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken 1 time.
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, and validated or marginalized.
Transfer Credit: Transfers to CSU; UC.

ENGL 46A  Major British Writers I
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Recommended Preparation: ENGL 1B/1BH/1BMC.
Repeatability: May be taken 1 time.
Surveys major British writers from the Middle Ages through 1785, including representative texts by writers such as Chaucer, Spenser, Shakespeare, Donne, Milton, Swift, and Pope. Relates the literature to the social, political, and cultural contexts in which it was written and read. Students enrolled in the Honors Transfer Program may count this course towards the "Honors Scholar" designation.
Transfer Credit: Transfers to CSU; UC. C-ID ENGL 160

ENGL 46B  Major British Writers II
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Recommended Preparation: ENGL 1B/1BH/1BMC.
Repeatability: May be taken 1 time.
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. Students enrolled in the Honors Transfer Program may count this course towards the "Honors Scholar" designation.
Transfer Credit: Transfers to CSU; UC. C-ID ENGL 165

ENGL 47  The Literature of the Storyteller
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken 1 time.
Centers on the literature and techniques of the storyteller from various cultures around the world.
Transfer Credit: Transfers to CSU; UC.

ENGL 48A  Mythology and Folklore
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken 1 time.
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; UC.

ENGL 49A  The Language of Film: Film History
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken 1 time.
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.
Transfer Credit: Transfers to CSU; UC.
ENGL 49B  The Language of Film: Special Topics in Film
3 units; 3 hours Lecture
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken 1 time.
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. Transfer Credit: Transfers to CSU; 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 59AZ  The Language of Film: Special Topics in Film
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken 1 time.
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. Transfer Credit: Transfers to CSU; 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 204MS or ESL 204MSB or ESL 204WC or ESL 204WCB.
Corequisite: ENGL 100L or ENGL 115.
Recommended Preparation: Eligibility for READ 100.
Repeatability: May be taken 1 time.
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 1 time.
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. Pass/No Pass grading only. May be offered in a Distance-Learning Format.

ENGL 115  Lessons in Punctuation and Sentence Structure
1 unit; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Provides 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. Pass/No Pass grading only.

ENGL 153  Spelling Lab
1 - 2 units; 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Provides individualized instruction on spelling patterns and rules under the supervision of a writing tutor. May be offered in a Distance-Learning Format.

ENGL 155AZ  Special Topics in Writing Study Skills
0.5 - 1 units; 1.5 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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.

ENGL 250  Basic Sentence Writing
1 - 2 units; 2 hours Laboratory
Repeatability: May be taken 1 time.
Provides practice in grammar, sentence structure, reading comprehension, and short essay composition to develop basic skills. Pass/No Pass grading.

ENGL 251  Lessons in Sentence Writing
1 unit; 1 hour Lecture
Repeatability: May be taken 1 time.
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. Pass/No Pass grading only.

ENGL 255  Basic English
4 units; 4 hours Lecture
Corequisite: READ 255 or READ 206 (1-3 units.)
Repeatability: May be taken 1 time.
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.

ENGL 256AZ  Special and Topical Approaches to Basic Writing
4 units; 4 hours Lecture
Repeatability: May be taken 1 time.
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. Focuses around a single topic or special approach (Current Events, Social Issues, Global Awareness, Career Technical Education [CTE]). Students write a minimum of 6,000 words and assemble portfolios of revised and timed writings.

ENGL 280AZ  Topics in Second Language Grammar
3 units; 3 hours Lecture
Repeatability: May be taken 1 time.
Remediates lingering problems in grammar, syntax, and idiom as supplementary courses for English language learners taking or qualifying for ENGL 255, 100, 1A, or 1B.
ENGL 501  Shakespeare’s Poetic Drama for Seniors
0 units; 3 hours Lecture
This course 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 502A  Autobiography Writing for Seniors
0 units; 3 hours Lecture
This course may be repeated.
Studies techniques of autobiography writing through in-class analysis of student writing.

ENGL 502L  Supervised Tutoring in Writing
0 units; 5 hours Laboratory
Repeatability: This course 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.

ENGL 559AZ  The Language of Film for Seniors: Special Topics in Film
0 units; 3 hours Lecture
Repeatability: This course may be repeated.
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.

ENGLISH AS A SECOND LANGUAGE
Business, English, and Language Arts Division
James Weckler, Division Dean
Division Office, Room 301
Zarmina Dastagir, Program Chair (831) 479-6398
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 786-4734
Call (831) 479-6400 for more information
http://www.cabrillo.edu/programs

English as a Second Language Courses

ESL 201FN  Beginning English Development through the Study of Fiction
4 - 6 units; 4 hours Lecture
Recommended Preparation: Appropriate assessment.
Repeatability: May be taken 1 time.
Uses fiction as a context to develop beginning reading, writing, listening and speaking skills in order to increase fluency in English and prepare students for future course work.

ESL 201FNA  Beginning English Development through the Study of Fiction - First Half
3 units; 3 hours Lecture
Prerequisite: Appropriate assessment.
Repeatability: May be taken 1 time.
Uses fiction as a context to develop beginning reading, writing, listening and speaking skills in order to increase fluency in English and prepare students for future course work.

ESL 201FNB  Beginning English Development through the Study of Fiction - Second Half
3 units; 3 hours Lecture
Prerequisite: ESL 201FNA or ESL 201UCA.
Repeatability: May be taken 1 time.
Uses fiction as a context to develop beginning reading, writing, listening and speaking skills in order to increase fluency in English and prepare students for future course work.
ESL 201L  English Development Lab: Foundation
0.5 - 2 units; 1.5 hours Laboratory
Repeatability: May be taken 1 time.
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 Pass/No Pass and operates on a drop-in or appointment basis.

ESL 201UC  Beginning English Development through the Study of United States Culture
4 - 6 units; 4 hours Lecture
Recommended Preparation: Appropriate assessment.
Repeatability: May be taken 1 time.
Uses United States culture as a context to develop beginning reading, writing, listening, and speaking skills in order to increase fluency in English and prepare students for future coursework.

ESL 201UCA  Beginning English Development through the Study of United States Culture - First Half
3 units; 3 hours Lecture
Prerequisite: Appropriate assessment.
Repeatability: May be taken 1 time.
Uses United States culture as a context to focus on beginning reading, writing, listening, and speaking skills in order to increase fluency in English and prepare students for future coursework.

ESL 201UCB  Beginning English Development through the Study of United States Culture - Second Half
3 units; 3 hours Lecture
Prerequisite: ESL 201FNA or ESL 201UCA.
Repeatability: May be taken 1 time.
Uses United States culture as a context to develop beginning reading, writing, listening, and speaking skills in order to increase fluency in English and prepare students for future coursework.

ESL 202AL  Low Intermediate English Development through the Study of American Literature
4 - 6 units; 4 hours Lecture
Recommended Preparation: ESL 201FN or ESL 201FNB or ESL 201UC or ESL 201UCB or appropriate assessment.
Repeatability: May be taken 1 time.
Uses American literature as a context to develop low intermediate reading, writing, listening and speaking skills in order to increase fluency in English and prepare students for future coursework.

ESL 202ALA  Low Intermediate English Development through the Study of American Literature - First Half
3 units; 3 hours Lecture
Prerequisite: ESL 201FN or ESL 201FNB or ESL 201UC or ESL 201UCB or appropriate assessment.
Repeatability: May be taken 1 time.
Uses American literature as a context to develop low intermediate reading, writing, listening and speaking skills in order to increase fluency in English and prepare students for future coursework.

ESL 202ALB  Low Intermediate English Development through the Study of American Literature - Second Half
3 units; 3 hours Lecture
Prerequisite: ESL 202ALA or ESL 202NSA.
Repeatability: May be taken 1 time.
Uses American literature as a context to develop low intermediate reading, writing, listening, and speaking skills in order to increase fluency in English and prepare students for future coursework.

ESL 202L  Beginning English Development Lab
0.5 - 2 units; 1.5 hours Laboratory
Repeatability: May be taken 1 time.
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 Pass/No Pass and operates on a drop-in or appointment basis.

ESL 202NS  Low Intermediate English Development through California Cultural and Natural Studies
4 - 6 units; 4 hours Lecture
Recommended Preparation: ESL 201UC or ESL 201FN or ESL 201UCB or ESL 201FNB or appropriate assessment.
Repeatability: May be taken 1 time.
Uses California cultural and natural studies as a context to develop low intermediate reading, writing, listening, and speaking skills in order to increase fluency in English and prepare students for future coursework.
ESL 202NSA  Low Intermediate English
Development through the Study of
Natural Science - First Half
3 units; 3 hours Lecture
Prerequisite: ESL 201FN or ESL 201FNB or ESL 201UC or ESL 201UCB or
appropriate assessment.
Repeatability: May be taken 1 time.

Uses natural science as a context to develop low-intermediate reading,
writing, listening, and speaking skills in order to increase fluency in
English and prepare students for future course work.

ESL 202NSB  Low Intermediate English
Development through the Study of
Natural Science - Second Half
3 units; 3 hours Lecture
Prerequisite: ESL 202NSA or ESL 202ALA.
Repeatability: May be taken 1 time.

Uses natural science as a context to develop low-intermediate reading,
writing, listening, and speaking skills in order to increase fluency in
English and prepare students for future course work.

ESL 202R  Beginning Reading and Vocabulary
2 - 4 units; 2 hours Lecture
Repeatability: May be taken 1 time.

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 203ES  High Intermediate English
Development through
Environmental Studies
4 - 6 units; 4 hours Lecture
Recommended Preparation: ESL 202AL or ESL 202ALB or ESL 202NS or ESL 202NSB or appropriate assessment.
Repeatability: May be taken 1 time.

Uses environmental studies as a context to develop high intermediate academic reading, writing, listening, and speaking skills in order to increase fluency in English and prepare students for future academic course work.

ESL 203ESA  High Intermediate English
Development through
Environmental Studies - First Half
3 units; 3 hours Lecture
Prerequisite: ESL 202AL or ESL 202ALB or ESL 202NS or ESL 202NSB or appropriate assessment.
Repeatability: May be taken 1 time.

Uses environmental studies as a context to develop high-intermediate academic reading, writing, listening, and speaking skills in order to increase fluency in English and prepare students for future college course work.

ESL 203ESB  High Intermediate English
Development through
Environmental Studies - Second Half
3 units; 3 hours Lecture
Prerequisite: ESL 203ESA or ESL 203UHA.
Repeatability: May be taken 1 time.

Uses environmental studies as a context to develop high-intermediate academic reading, writing, listening, and speaking skills in order to increase fluency in English and prepare students for future college course work.

ESL 203L  Intermediate English Development
Lab
0.5 - 2 units; 1.5 hours Laboratory
Repeatability: May be taken 1 time.

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 Pass/No Pass 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.
Repeatability: May be taken 1 time.

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 203UH  High Intermediate English
Development through the Study of
United States History and
Government
4 - 6 units; 4 hours Lecture
Recommended Preparation: ESL 202AL or ESL 202ALB or ESL 202NS or ESL 202NSB or appropriate assessment.
Repeatability: May be taken 1 time.

Uses United States history and government as a context to develop high intermediate academic reading, writing, listening, and speaking skills in order to increase fluency in English and prepare students for future academic course work.
ESL 203UHA High Intermediate English Development through the Study of United States History and Government - First Half

3 units; 3 hours Lecture
Prerequisite: ESL 202NS or ESL 202NSB or ESL 202AL or ESL 202ALB or appropriate assessment.
Repeatability: May be taken 1 time.

Uses United States history and government as a context to develop low-intermediate academic reading, writing, listening, and speaking skills in order to increase fluency in English and prepare students for future college course work.

ESL 203UHB High Intermediate English Development through the Study of United States History and Government - Second Half

3 units; 3 hours Lecture
Prerequisite: ESL 203UHA or ESL 203ESA.
Repeatability: May be taken 1 time.

Uses United States history and government as a context to develop high-intermediate academic reading, writing, listening, and speaking skills in order to increase fluency in English and prepare students for future college course work.

ESL 204L Advanced English Development Lab

0.5 - 2 units; 1.5 hours Laboratory
Repeatability: May be taken 1 time.

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 Pass/No Pass and operates on a drop-in or appointment basis.

ESL 204MS Advanced English Development through the Study of Modern Social Issues

4 units; 4 hours Lecture
Recommended Preparation: ESL 203ES or ESL 203ESB or ESL 203UH or ESL 203UHB or appropriate assessment.
Repeatability: May be taken 1 time.

Uses modern social issues as a context to develop advanced academic reading, writing, listening and speaking skills in order to increase fluency in English and prepare students for future academic course work.

ESL 204WCA Advanced English Development through the Study of World Cultures - First Half

3 units; 3 hours Lecture
Prerequisite: ESL 203UH or ESL 203UHB or ESL 203ES or ESL 203ESB or appropriate assessment.
Repeatability: May be taken 1 time.

Uses world cultures as a context to develop advanced academic reading, writing, listening and speaking skills in order to increase fluency in English and prepare students for future academic course work.
ESL 204WCB Advanced English Development through the Study of World Cultures - Second Half
3 units; 3 hours Lecture
Prerequisite: ESL 204WCA or ESL 204MSA.
Repeatability: May be taken 1 time.
Uses world cultures as a context to develop advanced academic reading, writing, listening and speaking skills in order to increase fluency in English and prepare students for both ENGL 100 and future academic course work.

ESL 221A ESL for Child Growth and Development
1 - 3 units; 1 hour Lecture
Repeatability: May be taken 1 time.
Uses Child Growth and Development as a content area to focus on beginning reading, writing, listening and speaking in order to improve general English and prepare students for future course work. Designed for ECE part-time students.

ESL 221B ESL for Early Childhood Curriculum
1 - 3 units; 1 hour Lecture
Repeatability: May be taken 1 time.
Uses Child Development and ECE Curriculum as content areas for beginning reading, writing, listening and speaking to improve general English and prepare students for future course work. Designed for ECE students.

ESL 221C ESL for Working with Young Children
1 - 3 units; 1 hour Lecture
Recommended Preparation: ESL 221B or Appropriate assessment.
Repeatability: May be taken 1 time.
Uses topics relating to working with young children as context for low-intermediate reading, writing, listening and speaking skills to increase fluency in English. Prepares students for future course work. Designed for ECE students.

ESL 221D ESL for Working with Children and Families
1 - 3 units; 1 hour Lecture
Recommended Preparation: ESL 221C or Appropriate assessment.
Repeatability: May be taken 1 time.
Uses topics relating to children and families as context for low-intermediate reading, writing, listening, and speaking skills to increase fluency in English. Prepares students for future course work.

ESL 231 Beginning English Structure and Form
3 - 4 units; 3 hours Lecture
Repeatability: May be taken 1 time.
Emphasizes the use of accurate fundamental English necessary for clear written and spoken communication by focusing on grammatical form and structure.

ESL 232 Intermediate English Structure and Form
3 - 4 units; 3 hours Lecture
Recommended Preparation: ESL 231 or ESL 201FN or ESL 201FNB or ESL 201UC or ESL 201UCB.
Repeatability: May be taken 1 time.
Emphasizes improvement of accuracy regarding spoken and written English for future college and university course work.

ESL 233 Advanced English Structure and Form
3 - 4 units; 3 hours Lecture
Recommended Preparation: ESL 232 or ESL 202NS or ESL 202NSB or ESL 202AL or ESL 202ALB.
Repeatability: May be taken 1 time.
Emphasizes accuracy of advanced English syntax and form for future academic success.

ESL 253A Beginning ESL Oral Communication
2 - 6 units; 2 hours Lecture
Repeatability: May be taken 1 time.
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
2 - 6 units; 2 hours Lecture
Recommended Preparation: ESL 253A or equivalent experience.
Repeatability: May be taken 1 time.
Provides small group discussion, listening comprehension, pronunciation, intonation, vocabulary, American idioms, reading, taped conversations, lecture note-taking.

ESL 253C Advanced ESL Oral Communication
2 - 6 units; 2 hours Lecture
Recommended Preparation: ESL 253B or equivalent experience.
Repeatability: May be taken 1 time.
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.

ESL 260A ESL Writing Improvement--Beginning Low Level
2 units; 2 hours Lecture
Repeatability: May be taken 1 time.
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. Pass/No Pass grading only.
ESL 260B  ESL Writing Improvement–Beginning High Level
2 units; 2 hours Lecture
Repeatability: May be taken 1 time.

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. Pass/No Pass grading only.

ESL 261A  ESL Writing Improvement–Intermediate Level
2 units; 2 hours Lecture
Repeatability: May be taken 1 time.

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. Pass/No Pass grading only.

ESL 261B  ESL Writing Improvement–Advanced Level
2 units; 2 hours Lecture
Repeatability: May be taken 1 time.

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. Pass/No Pass grading only.

ESL 270P  Pronunciation Improvement for ESL Students
1 - 3 units; 1 hour Lecture
Repeatability: May be taken 1 time.

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
Repeatability: May be taken 1 time.

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 280AZ  ESL Special Topics
1 - 3 units; 1 hour Lecture
Repeatability: May be taken 1 time.

Designed for Second Language students who wish to focus on a specific area of English development. Each topic (A-Z) may be repeated twice.

ESL 502  Supervised Tutoring in Writing
0 units; 5 hours Laboratory
Repeatability: May be taken 1 time.

Provides individual tutorial assistance on college writing assignments; designed to support students who use writing tutorial services on an as-needed basis.

ESL 553  Supervised Tutoring in Writing
0 units; 5 hours Laboratory
Repeatability: May be taken 1 time.

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.

ENVIRONMENTAL SCIENCE
Natural and Applied Sciences Division
Wanda Garner, Division Dean
Division Office, Room 701
David Schwartz, Program Chair, (831) 479-6495
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 786-4734
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.
Repeatability: May be taken 1 time.

Covers the physical, biological, chemical and human systems that constitute the Earth’s environment. Topics include geological processes, hydrology, natural resources, climatology, population biology, ecosystems, biodiversity, biochemistry and the chemistry of pollution. Includes an analysis of how human behavior and institutions affect the environment.

Transfer Credit: Transfers to CSU; UC.

ES 10L  Introduction to Environmental Science Lab
1 unit; 3 hours Laboratory
Hybrid Requisite: Completion of or concurrent enrollment in ES 10.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Presents hands-on exploration for topics associated with Environmental Science including watershed monitoring and field trips to local agencies.

Transfer Credit: Transfers to CSU; UC.
FOREIGN LANGUAGES
see WORLD LANGUAGES

FRENCH
Business, English, and Language Arts Division
James Weckler, Division Dean
Division Office, Room 301
Nancy Stucker, Program Chair, (831) 477-3221
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 786-4734
Call (831) 479-6400 for more information
http://www.cabrillo.edu/programs

French Courses

FR 1 Elementary French I
5 units; 5 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Develops speaking, listening comprehension, reading, and writing skills, with French as the primary language of instruction. Students communicate through class activities and study the French culture. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU, UC.

FR 2 Elementary French II
5 units; 5 hours Lecture
Prerequisite: FR 1 or two years of high school French, or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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 study French cultures.
Transfer Credit: Transfers to CSU, UC.

FR 3 Intermediate French I
5 units; 5 hours Lecture
Prerequisite: FR 2 or equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Further develops skills acquired in first-year French and reviews grammar and vocabulary. Students study French cultures through reading and discussion of literary and cultural texts and develop writing skills.
Transfer Credit: Transfers to CSU, UC.

FR 4 Intermediate French II
5 units; 5 hours Lecture
Prerequisite: FR 3 or equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Uses advanced vocabulary, structures, and analysis of literary/cultural texts to further develop writing skills.
Transfer Credit: Transfers to CSU, UC.

FR 10 French Conversation
3 units; 3 hours Lecture
Prerequisite: FR 2 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Develops basic conversational skills with attention to accuracy, vocabulary, and pronunciation. Students discuss culturally relevant topics and situations drawn from written and audiovisual sources.
Transfer Credit: Transfers to CSU, UC.

FR 20AZ Studies in French Language
0.5 - 4 units; 0.5 hour Lecture
Prerequisite: FR 2.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
In-depth studies of advanced topics in French language.
Transfer Credit: Transfers to CSU, 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.

GENERAL EDUCATION
Students may earn a Certificate of Achievement in CSU General Education Breadth or in IGETC General Education.
Certificates of Achievement
1. Certificate of Achievement in IGETC
   (Intersegmental General Education Transfer Curriculum)
   Requirements:
   For UC:
   Completion of a minimum of 27 units taken from Areas 1 through 5
   Must include completion of Areas 1 and 2 (English and Math)
   For CSU:
   Completion of a minimum of 30 units taken from Areas 1 through 5
   Must include completion of Areas 1 and 2 (English and Math & Comm Studies)

2. Certificate of Achievement in CSU General Education/ Breadth
   Requirements:
   Completion of a minimum of 30 units taken from Areas A through E
   Must include all of Area A (English Language Communication and Critical Thinking) and Area B4 (Quantitative Reasoning)
GENERAL SCIENCE
Natural and Applied Sciences Division
Wanda Garner, Division Dean
Division Office, Room 701
Aptos Counselor: (831) 479-6274 for appointment
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General Science
Program Description:
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
These Associate Degrees require 60 units appropriate to your educational goal, to include general education and at least 18 units in a major. Courses should be selected to meet the lower-division major preparation requirements at your intended transfer university - these specific requirements can be found at www.assist.org for 4-year public institutions in California. Please see a counselor for advisement to ensure you are taking the best possible courses given your goal.

The department presents the following suggested model program for this major. The courses listed below may or may not be appropriate depending on your specific goal. Please see a counselor for advisement for transfer to any 4-year institution.

A.A. Degree: General Science
General Education 30 Units
Laboratory Sciences ...................................... 16
Mathematics(*) ............................................. 5
Electives (any course numbered 1-99) ..................... 9
Total Units ................................................. 60

Laboratory Sciences
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, PHYS 10, ENGR 5 or 25 ............ 16
Life Forms (defined in Area B in A.A. requirements)

Chemistry

Physics

Earth and Space Sciences (Astronomy, Physical Geography, Geology, Meteorology or Oceanography)

Mathematics
Mathematics: 5 units minimum from MATH 4, MATH 5 (series), or MATH 12/12H ................................. 5

Electives:
(Any Course numbered 1-99) .............................. 9
Total Units ................................................. 60

A.S. Degree: General Science
A.S. General Education ...................................... 21 Units
Laboratory Sciences ........................................ 20
Mathematics(*) ............................................. 5
Approved Electives ........................................ 5
Electives (any course numbered 1-99) ..................... 9
Total Units ................................................. 60

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 ............ 20
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
Mathematics: 5 units minimum from MATH 4, MATH 5 (series), or MATH 12/12H ................................. 5

Approved Electives (5 Units)
Elective units (to achieve the required total of 30) chosen from Area B list in the A.S. degree requirements, Computer Science, or Engineering ......... 5
Electives
(Transfer): (Any Course Number 1-99) ...................... 9
Total Units ................................................. 60
GEOGRAPHY
Human Arts and Social Sciences Division
Isabel O’Connor, Division Dean
Division Office, Room 420
Rory O’Brien, Program Chair, (831) 479-6443
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 786-4734
Call (831) 479-6297 for more information
http://www.cabrillo.edu/programs

Geography A.A. Degree

Program Description:
Geography studies Earth’s natural and cultural systems, integrating data from the physical sciences, social sciences and humanities. Geographers make maps and use maps as tools of learning and for interpreting the physical and cultural aspects of Earth. Geographic studies are critical for understanding the international-global arena; past, present and future. A degree in geography provides excellent opportunities for careers with city, county and state governments in geographic information systems (GIS), urban planning, land use management, and environmental consulting. On a national level, many geographers are employed at the United States Geological Survey’s national mapping program. Geographers with advanced degrees may find positions in research or college-level teaching.

Model Program for Geography
An Associate Degree requires 60 units appropriate to your educational goal, to include general education and at least 18 units in a major. Courses should be selected to meet the lower-division major preparation requirements at your intended transfer university; these specific requirements can be found at www.assist.org for 4-year public institutions in California. Please see a counselor for advisement to ensure you are taking the best possible courses given your goal.

The department presents the following suggested model program for this major. The courses listed below may or may not be appropriate depending on your specific goal. Please see a counselor for advisement for transfer to any 4-year institution.

A.A. General Education

<table>
<thead>
<tr>
<th>Core Courses (9-14 Units)</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>
</tbody>
</table>

Highly Recommended

<table>
<thead>
<tr>
<th>Plus one course chosen from the following:</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 12 Elementary Statistics</td>
</tr>
<tr>
<td>or</td>
</tr>
<tr>
<td>MATH 12H Honors Elementary Statistics</td>
</tr>
</tbody>
</table>

Electives:

<table>
<thead>
<tr>
<th>Electives:</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Any Course Numbered 1-99)</td>
</tr>
</tbody>
</table>

Total Units: 60

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.

Geography Courses

GEOG 1 Physical Geography
3 units; 4 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Studies Earth’s dynamic physical systems and processes, including Earth-sun geometry, weather, climate, water, landforms, soil and the biosphere. Emphasizes interrelationships between human and environmental systems. May be offered in a Distance-Learning Format.

Transfer Credit: Transfers to CSU; UC.

GEOG 1L Physical Geography Laboratory
1 unit; 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154
Hybrid Requisite: Completion of or concurrent enrollment in GEOG 1.
Repeatability: May be taken 1 time.

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; UC.
GEOG 2 Cultural Geography
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Introduces the geography of culture including population dynamics, social customs, language, religion, political organization, agricultural systems, cities, industry, and environmental impacts.
Transfer Credit: Transfers to CSU; UC.

GEOG 3A Map Reading
1 unit; 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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.
Repeatability: May be taken 1 time.
Surveys the world’s geographic regions including historical development, cultures, economics, and spatial relationship of the geographic realms.
Transfer Credit: Transfers to CSU; UC.

GEOG 5 California Geography
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Explores the physical and human landscapes of California and the development of the state as a result of human interactions with the environment. Topics relevant to the state’s development and to geography are explored including: climate, landforms, natural vegetation, water resources, cultural landscape, ethnic diversity, urban and agricultural regions, and the economy.
Transfer Credit: Transfers to CSU; UC.

GEOLOGY
Natural and Applied Sciences Division
Wanda Garner, Division Dean
Division Office, Room 701
David Schwartz, Program Chair, (831) 479-6495
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 786-4734
Call (831) 479-6328 for more information
www.cabrillo.edu/programs

Geology A.S. Degree
Program Description:
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
This Associate Degree requires 60 units appropriate to your educational goal, to include general education and at least 30 units in a major. Courses should be selected to meet the lower-division major preparation requirements at your intended transfer university; these specific requirements can be found at www.assist.org for 4-year public institutions in California. Please see a counselor for advisement to ensure you are taking the best possible courses given your goal.

The department presents the following suggested model program for this major. The courses listed below may or may not be appropriate depending on your specific goal. Please see a counselor for advisement for transfer to any 4-year institution.

A.S. General Education 21 Units
Core Courses Plus Approved Electives Units
GEOL 10 Introduction to Earth Science . . . . . . . . . . . . . . . . . . 4
CHEM 1A General Chemistry I . . . . . . . . . . . . . . . . . . . . . . . . . 5
CHEM 1B General Chemistry II . . . . . . . . . . . . . . . . . . . . . . . . . 5
MATH 5A Analytic Geometry and Calculus I . . . . . . . . . . . . . . 5
MATH 5B Analytic Geometry and Calculus II . . . . . . . . . . . . . 5
MATH 5C Analytic Geometry and Calculus III . . . . . . . . . . . . . 5
PHYS 4A Physics for Scientists and Engineers I . . . . . . . . . . 5
PHYS 4B *Physics for Scientists and Engineers II . . . . . . . . . 5
PHYS 4C **Physics for Scientists and Engineers III . . . . . . . . 5
or
PHYS 2A *General Physics I . . . . . . . . . . . . . . . . . . . . . . . . . . 4
PHYS 2B **General Physics II . . . . . . . . . . . . . . . . . . . . . . . . . 4
Approved Electives Units
ENGR 1A *Surveying . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
ES 10 Introduction to Environmental Science . . . . . . . . . . . . . 3
GEOL 15 Environmental Geology . . . . . . . . . . . . . . . . . . . . . . . 3
GEOL 20 California Geology . . . . . . . . . . . . . . . . . . . . . . . . . . 4
GEOL 25 Geology of National Parks . . . . . . . . . . . . . . . . . . . . . 3
MATH 6 **Introduction to Linear Algebra . . . . . . . . . . . . . . . 3
OCEAN 10 Introduction to Oceanography . . . . . . . . . . . . . . 4
Total Units 60
*fall only; **spring only
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.
Repeatability: May be taken 1 time.
Introduces the phenomena and basic principles of physical geology with laboratory exercises illustrating the nature of minerals, rocks, geological structures and processes such as surface water, earthquakes, volcanoes and glaciers, and the use and interpretation of topographic and geologic maps.
Transfer Credit: Transfers to CSU; UC.

GEOL 15 Environmental Geology
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Introduces the interactions among Earth systems, humans and the environment. Topics include Earth systems and the physical interactions among different systems, natural disasters (earthquakes, volcanoes, floods, landslides), groundwater, waste disposal, pollution, resources and population, engineering geology and land-use planning.
Transfer Credit: Transfers to CSU; UC.

GEOL 20 California Geology
4 units; 3 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Introduces the geologic history of California. Includes 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. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.
Transfer Credit: Transfers to CSU; UC.

GEOL 25 Geology of National Parks
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC.

GEOL 27 Geology of the Pinnacles National Monument
1 unit; 1 hour Lecture, 0.5 hour Laboratory
Corequisite: ASTRO 27.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Provides a weekend field lecture course allowing 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 Field Geology of Point Lobos and Big Sur
1 unit; 0.7 hour Lecture, 0.8 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
A weekend field lecture course to study through direct observation the geologic history of Point Lobos and Big Sur Country.
Transfer Credit: Transfers to CSU.

German Courses

GRMN 1 Elementary German I
5 units; 5 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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.
Transfer Credit: Transfers to CSU; UC.

GRMN 2 Elementary German II
5 units; 5 hours Lecture
Prerequisite: GRMN 1 or two years of high school German, or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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.
Transfer Credit: Transfers to CSU; UC.

GRMN 10 German Conversation
3 units; 3 hours Lecture
Prerequisite: GRMN 2 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Develops basic conversational skills with attention to accuracy, vocabulary, and pronunciation. Students will discuss culturally relevant topics and situations drawn from written and audiovisual sources.
Transfer Credit: Transfers to CSU; UC.
HEALTH SCIENCE/COMMUNITY HEALTH

Health, Athletics, Wellness, and Kinesiology Division
Ian Haslam, Division Dean
Division Office, Room 1102
Patrick Meyer, Program Chair, (831) 479-6210
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 786-4734
Call (831) 479-6266 for more information
http://www.cabrillo.edu/programs

Health Science/Community Health A.A. Degree

Program Description:
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
An Associate Degree requires 60 units appropriate to your educational goal, to include general education and at least 18 units in a major. Courses should be selected to meet the lower-division major preparation requirements at your intended transfer university. Specific requirements can be found at www.assist.org for 4-year public institutions in California. Please see a counselor for advisement to ensure you are taking the best possible courses given your goal.

A.A. General Education
30 Units

Core Courses
BIO 4 Human Anatomy ............................................ 4
BIO 5 Human Physiology ......................................... 4
CAHM 20 Nutrition .................................................. 3
CHEM 30A Inorganic Chemistry for Health Occupations .... 4
CHEM 30B Introductory Organic Chemistry and Biochemistry for Health Occupations ................. 4
HS 10 Personal Health .............................................. 3

Recommended from Related Disciplines:

Units
BIO 6 Microbiology .................................................... 4
ECON 1A Introduction to Macroeconomics .................... 3
ECON 1B Introduction to Microeconomics .................... 3
PSYCH 1 General Psychology ...................................... 3
or
PSYCH 1H Honors General Psychology .......................... 3
SOC 1 Introduction to Sociology: Understanding Society .................. 3
or

Electives:
(Any Course Numbered 1-99) .................................... 8

Total Units .......................................................... 60

Health Science/Community Health Courses

HS 10 Personal Health
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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; UC.

HS 12 Stress Management
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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.
Repeatability: May be taken 1 time.
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.

HS 20 Introduction to Holistic Health and Medicine
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Explores research and applications of complementary and alternative medicine. Topics include integrative medicine, herbal and drug use, dietary research and nutriceuticals, preventive medicine, and psychoneuroimmunology.
Transfer Credit: Transfers to CSU; UC.
HS 21  Health and Physical Fitness  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
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.

HS 22  The Wellness Challenge  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Explores personal wellness concepts in disease prevention while integrating diet, exercise, and stress factors with behavior change models for lifelong wellness. Emphasis on adopting and maintaining a healthy lifestyle, including assessments and reflection of health decisions.  
Transfer Credit: Transfers to CSU.

HS 24  Environmental Health  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Explores the environmental factors that affect public health, including air and water pollution, climate change, food safety, waste management, and workplace health. Discusses fundamentals of managing environmental health problems on a community level and reducing environmental impact as individuals.  
Transfer Credit: Transfers to CSU; UC.

HISTORY  
Human Arts and Social Sciences Division  
Isabel O’Connor, Division Dean  
Division Office, Room 420  
Rory O’Brien, Program Chair, (831) 479-6443  
Michael Pebworth, Program Contact, (831) 477-3577.  
Aptos Counselor: (831) 479-6274 for appointment  
Watsonville Counselor: (831) 786-4734  
Call (831) 479-6297 or for more information  
http://www.cabrillo.edu/programs  

Associate Degree for Transfer  
A Degree with a Guarantee.SM  

History A.A.-T Transfer Degree  
Program Description:  
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. Cabrillo’s history department offers a core curriculum in U.S. History, World History and Western Civilization, as well as offering a wide range of courses in other fields. The program emphasizes multicultural approaches; ethnic diversity and gender dynamics are part of all our courses. In addition, Chicano History, the History of Women in American and a range of Asian histories are very successful. The department also occasionally offers local and regional history courses. 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.  
Cabrillo offers options for degrees in History. The first option listed below is the Associate in Arts in History for Transfer (A.A.-T), which is intended for students who plan to complete a bachelor’s degree in a similar major at a CSU campus. Students completing these degrees are guaranteed admission to the CSU system, but not to a particular campus or major. This degree may not be the best option for students intending to transfer to a particular CSU campus or to a university or college that is not part of the CSU system. See Associate Degree for Transfer information in the Cabrillo College Catalog.
The following is required for all A.A.-T or A.S.-T degrees:

- Completion of 60 CSU-transferable semester units.
- Minimum grade-point average (GPA) of at least 2.0 in all CSU-transferable course work. While a minimum of 2.0 is required for admission, some majors may require a higher GPA.
- Completion of a minimum of 18 semester units in the major with a letter grade of "C" or better. A "P" grade is not acceptable for courses in the major.
- Certified completion of the California State University General Education-Breadth pattern (CSU GE Breadth) or the Intersegmental General Education Transfer Curriculum (IGETC) pattern.

The second option fulfills requirements for an A.A. Degree in History at Cabrillo College.

Completion of CSU or IGETC

General Education Requirements Units
Core (6 units) 37-39

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 17A</td>
<td>United States History to 1865</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>HIST 17AH</td>
<td>Honors United States History to 1865</td>
</tr>
<tr>
<td>HIST 17B</td>
<td>United States History since 1865</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>HIST 17BH</td>
<td>Honors United States History since 1865</td>
</tr>
</tbody>
</table>

List A-Select 3 units from:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 2A</td>
<td>World History to 1500</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>HIST 4A</td>
<td>Survey of Western Civilization to 1648</td>
</tr>
<tr>
<td>or</td>
<td>HIST 4AH</td>
<td>Honors Survey of Western Civilization to 1648</td>
</tr>
</tbody>
</table>

And 3 units from:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 2B</td>
<td>World History: 1500 to Present</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>HIST 4B</td>
<td>Survey of Western Civilization–1648 to Late 20th Century</td>
</tr>
<tr>
<td>or</td>
<td>HIST 4BH</td>
<td>Honors Survey of Western Civilization–1648 to Late 20th Century</td>
</tr>
</tbody>
</table>

List B-Select 3 units from:

Any course not used in List A above

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 6</td>
<td>History of the Middle East</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>HIST 14</td>
<td>Women in America</td>
</tr>
<tr>
<td>HIST 14H</td>
<td>Honors Women in America</td>
<td>3</td>
</tr>
<tr>
<td>HIST 16A</td>
<td>Latin America to 1825</td>
<td>3</td>
</tr>
<tr>
<td>HIST 16B</td>
<td>Latin America since 1825</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>Introduction to Chinese History</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>HIST 19B</td>
<td>Introduction to Japanese History</td>
</tr>
<tr>
<td>or</td>
<td>HIST 19C</td>
<td>Introduction to Japanese History</td>
</tr>
<tr>
<td>HIST 29A</td>
<td>African American History since 1865</td>
<td>3</td>
</tr>
<tr>
<td>HIST 29B</td>
<td>African American History since 1865</td>
<td>3</td>
</tr>
</tbody>
</table>

And 3 units from:

Any course not used in List A or B above

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PS 1</td>
<td>Introduction to Government</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>PS 1H</td>
<td>Honors Introduction to Government</td>
</tr>
<tr>
<td>PS 2</td>
<td>Comparative Government</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units 60

Note: All courses are also general education courses.

History A.A. Degree

Model Program for History

An Associate Degree requires 60 units appropriate to your educational goal, to include general education and at least 18 units in a major. Courses should be selected to meet the lower-division major preparation requirements at your intended transfer university; these specific requirements can be found at www.assist.org for 4-year public institutions in California. Please see a counselor for advisement to ensure you are taking the best possible courses given your goal.

The department presents the following suggested model program for this major. The courses listed below may or may not be appropriate depending on your specific goal. Please see a counselor for advisement for transfer to any 4-year institution.

A.A. General Education 30 Units

Core Courses (12-15 Units) Units

World History–choose one from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<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>
</tr>
<tr>
<td>HIST 6</td>
<td>History of the Middle East</td>
<td>3</td>
</tr>
<tr>
<td>HIST 16A</td>
<td>Latin America to 1825</td>
<td>3</td>
</tr>
<tr>
<td>HIST 16B</td>
<td>Latin America since 1825</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>Introduction to South and Southeast Asian History</td>
<td>3</td>
</tr>
<tr>
<td>HIST 19B</td>
<td>Introduction to Chinese History</td>
<td>3</td>
</tr>
<tr>
<td>HIST 19C</td>
<td>Introduction to Japanese History</td>
<td>3</td>
</tr>
</tbody>
</table>

Western Civilization–choose one from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 4A</td>
<td>Survey of Western Civilization to 1648</td>
<td>3</td>
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<tr>
<td>or</td>
<td>HIST 4AH</td>
<td>Honors Survey of Western Civilization to 1648</td>
</tr>
<tr>
<td>or</td>
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<td>Survey of Western Civilization–1648 to Late 20th Century</td>
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<tr>
<td>or</td>
<td>HIST 4BH</td>
<td>Honors Survey of Western Civilization–1648 to Late 20th Century</td>
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</tbody>
</table>

The department presents the following suggested model program for this major. The courses listed below may or may not be appropriate depending on your specific goal. Please see a counselor for advisement for transfer to any 4-year institution.

A.A. General Education 30 Units

Core Courses (12-15 Units) Units

World History–choose one from the following:

<table>
<thead>
<tr>
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</thead>
<tbody>
<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>
</tr>
<tr>
<td>HIST 6</td>
<td>History of the Middle East</td>
<td>3</td>
</tr>
<tr>
<td>HIST 16A</td>
<td>Latin America to 1825</td>
<td>3</td>
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<tr>
<td>HIST 16B</td>
<td>Latin America since 1825</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>Introduction to South and Southeast Asian History</td>
<td>3</td>
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<tr>
<td>HIST 19B</td>
<td>Introduction to Chinese History</td>
<td>3</td>
</tr>
<tr>
<td>HIST 19C</td>
<td>Introduction to Japanese History</td>
<td>3</td>
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</tbody>
</table>
### United States History

- **HIST 17A** United States History to 1865 .................................................. 3
- **HIST 17B** United States History since 1865 ........................................... 3
- **HIST 17AH** Honors United States History to 1865 ................................. 3
- **HIST 17B** United States History since 1865 ........................................... 3
- **HIST 17BH** Honors United States History since 1865 ......................... 3
- **HIST 21A** Chicano History to 1865 .......................................................... 3
- **HIST 21B** Chicano History since 1865 ..................................................... 3
- **HIST 21AH** Honors Chicano History to 1865 ........................................ 3
- **HIST 21B** Chicano History since 1865 ..................................................... 3
- **HIST 21BH** Honors Chicano History since 1865 .................................... 3
- **HIST 29A** African American History to 1865 ...................................... 3
- **HIST 29B** African American History since 1865 .................................. 3

Choose one to two additional courses from any of the three areas listed above. Courses that meet the multicultural requirement include: HIST 2AB, HIST 6, HIST 16ABC, HIST 18AB, HIST 19ABC, HIST 21AB, and HIST 29AB.

### Approved Electives:

Choose 9-12 elective units from the following list:

<table>
<thead>
<tr>
<th>Units</th>
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<tbody>
<tr>
<td><strong>HIST 2A</strong></td>
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<td><strong>HIST 6</strong></td>
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<td><strong>HIST 16C</strong></td>
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<td><strong>HIST 17BH</strong></td>
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<td><strong>HIST 19A</strong></td>
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<td><strong>HIST 19C</strong></td>
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<td><strong>HIST 20A-Z</strong></td>
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<td><strong>HIST 21A</strong></td>
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Choose 3-9 elective units from the following list:

### From Related Disciplines:

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<thead>
<tr>
<th>Units</th>
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<tbody>
<tr>
<td><strong>ANTHR 1</strong></td>
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<td><strong>ANTHR 2H</strong></td>
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<td><strong>ANTHR 3</strong></td>
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<td><strong>ECON 1A</strong></td>
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<td><strong>PS 2</strong></td>
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<td><strong>SOC 1</strong></td>
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<tr>
<td><strong>SOC 1H</strong></td>
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</tbody>
</table>

**Total Units 60**

Prospective History majors are encouraged to consult a history instructor regarding recommended elective courses.

### History Courses

**HIST 2A** World History to 1500  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 1A/1AH/1AMC/1AMCH and READ 100.  
Repeatability: May be taken 1 time.  
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.

*Transfer Credit:* Transfers to CSU; UC.
HIST 2B  World History: 1500 to Present
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 1A/1AH/1AMC/1AMCH and READ 100.
Repeatability: May be taken 1 time.
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.
Transfer Credit: Transfers to CSU; UC.

HIST 4A  Survey of Western Civilization to 1648
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 1A/1AH/1AMC/1AMCH and READ 100.
Repeatability: May be taken 1 time.
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; UC. C-ID HIST 170

HIST 4AH  Honors Survey of Western Civilization to 1648
3 units; 3 hours Lecture
Prerequisite: Honors standing.
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken 1 time.
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. Highlights student research, writing, and reporting, both individually and as part of a learning community, and will often meet in a seminar format.
Transfer Credit: Transfers to CSU; UC.

HIST 4B  Survey of Western Civilization–1648 to Late 20th Century
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 1A/1AH/1AMC/1AMCH and READ 100.
Repeatability: May be taken 1 time.
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 evaluation.
Transfer Credit: Transfers to CSU; UC. C-ID HIST 180

HIST 4BH  Honors Survey of Western Civilization–1648 to Late 20th Century
3 units; 3 hours Lecture
Prerequisite: Honors standing.
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken 1 time.
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. Highlights student research, writing, and reporting, both individually and as part of a learning community, and will often meet in a seminar format.
Transfer Credit: Transfers to CSU; UC.

HIST 6  History of the Middle East
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 1A/1AH/1AMC/1AMCH and READ 100.
Repeatability: May be taken 1 time.
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. Critical, analytical written work is the primary means of evaluation.
Transfer Credit: Transfers to CSU; UC.
**HIST 9 History of England**
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 1A/1AH/1AMC/1AMCH and READ 100.
Repeatability: May be taken 1 time.
Examines the social, cultural, and political history of England including early and medieval Britain, constitutionalism, imperialism, the World Wars, and contemporary developments. Critical, analytical written work is the primary means of evaluation.
Transfer Credit: Transfers to CSU; UC.

**HIST 14 Women in America**
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 1A/1AH/1AMC/1AMCH and READ 100.
Repeatability: May be taken 1 time.
Examines the social, economic, and political history of women, in the context of general U.S. history. 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; UC.

**HIST 14H Honors Women in America**
3 units; 3 hours Lecture
Prerequisite: Honors Standing.
Recommended Preparation: Eligibility for ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken 1 time.
Examines the social, economic, and political history of women, in the context of general U.S. history. 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. Highlights student research, writing and reporting, both individually and as part of a learning community, and will often meet in a seminar format. Satisfies U.S. History requirement.
Transfer Credit: Transfers to CSU; UC.

**HIST 15 Recent American History**
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 1A/1AH/1AMC/1AMCH and READ 100.
Repeatability: May be taken 1 time.
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; UC.

**HIST 16A Latin America to 1825**
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 1A/1AH/1AMC/1AMCH and READ 100.
Repeatability: May be taken 1 time.
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; UC.

**HIST 16B Latin America since 1825**
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 1A/1AH/1AMC/1AMCH and READ 100.
Repeatability: May be taken 1 time.
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; UC.

**HIST 16C History of Mexico**
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 1A/1AH/1AMC/1AMCH and READ 100.
Repeatability: May be taken 1 time.
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; UC.

**HIST 17A United States History to 1865**
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 1A/1AH/1AMC/1AMCH and READ 100.
Repeatability: May be taken 1 time.
Surveys American history, tracing the development of American ideals and institutions from the pre-colonial and colonial periods through the American Revolution, the establishment of the Constitution, early national and antebellum eras, and the Civil War. May be offered in a Distance-Learning format. Critical, analytical written work is the primary means of evaluation. Satisfies U.S. History requirement.
Transfer Credit: Transfers to CSU; UC. C-ID HIST 130
HIST 17AH  Honors United States History to 1865  
3 units; 3 hours Lecture  
Prerequisite: Honors standing.  
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.  
Repeatability: May be taken 1 time.  
Surveys American history, tracing the development of American ideals and institutions from the pre-colonial 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. Highlights student research, writing, and reporting, both individually and as part of a learning community, and will often meet in a seminar format. Satisfies U.S. History requirement.  
Transfer Credit: Transfers to CSU; UC.

HIST 17B  United States History since 1865  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 1A/1AH/1AMC/1AMCH and READ 100.  
Repeatability: May be taken 1 time.  
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. May be offered in a Distance-Learning Format. Satisfies U.S. History requirement.  
Transfer Credit: Transfers to CSU; UC.

HIST 17BH  Honors United States History since 1865  
3 units; 3 hours Lecture  
Prerequisite: Honors standing.  
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.  
Repeatability: May be taken 1 time.  
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. Highlights student research, writing, and reporting, both individually and as part of a learning community, and will often meet in a seminar format. Satisfies U.S. History requirement.  
Transfer Credit: Transfers to CSU; UC.

HIST 19A  Introduction to South and Southeast Asian History  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 1A/1AH/1AMC/1AMCH and READ 100.  
Repeatability: May be taken 1 time.  
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; UC.

HIST 19B  Introduction to Chinese History  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 1A/1AH/1AMC/1AMCH and READ 100.  
Repeatability: May be taken 1 time.  
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. Critical, analytical written work is the primary means of evaluation.  
Transfer Credit: Transfers to CSU; UC.

HIST 19C  Introduction to Japanese History  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 1A/1AH/1AMC/1AMCH and READ 100.  
Repeatability: May be taken 1 time.  
Emphasizes the general features of Japan’s society, economy, government, religion, philosophy and art. Critical, analytical written work is the primary means of evaluation.  
Transfer Credit: Transfers to CSU; UC, pending review.

HIST 20A-Z  American Studies  
1 - 3 units; 1 hour Lecture  
Recommended Preparation: Eligibility for ENGL 1A/1AH/1AMC/1AMCH and READ 100.  
Repeatability: May be taken 1 time.  
Traces the development and analyzes a particular facet of American history, e.g., of 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; 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 1A/1AH/1AMC/1AMCH and READ 100.  
Repeatability: May be taken 1 time.  
Traces the cultural, economic, literary, and political history of the Mexican American, in the general context of U.S. history, to 1865. 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; UC.
HIST 21AH  Honors Chicano History to 1865
3 units; 3 hours Lecture
Prerequisite: Honors standing.
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken 1 time.
Traces the cultural, economic, literary, and political history of the Mexican American, in the context of general U.S. history, to 1865. 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. Highlights student research, writing, and reporting, both individually and as part of a learning community, and will often meet in a seminar format. Critical, analytical written work is the primary means of evaluation. Satisfies U.S. History requirement.
Transfer Credit: Transfers to CSU; UC.

HIST 21B  Chicano History since 1865
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken 1 time.
The course covers the development of the Chicano in the United States, in the context of general U.S. history, 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; UC.

HIST 21BH  Honors Chicano History since 1865
3 units; 3 hours Lecture
Prerequisite: Honors standing.
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken 1 time.
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; UC.

HIST 23  History of Contemporary Chicano Movements
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 1A/1AH/1AMC/1AMCH and READ 100.
Repeatability: May be taken 1 time.
Covers the origins of the growing politicalization 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. Critical, analytical written work is the primary means of evaluation.
Transfer Credit: Transfers to CSU; UC.

HIST 24  History of California
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 1A/1AH/1AMC/1AMCH and READ 100.
Repeatability: May be taken 1 time.
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 is the primary means of evaluation.
Transfer Credit: Transfers to CSU; 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.
Repeatability: May be taken 1 time.
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 contributions 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.
Repeatability: May be taken 1 time.
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.
Repeatability: May be taken 1 time.
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 1A/1AH/1AMC/1AMCH and READ 100.
Repeatability: May be taken 1 time.
Surveys the history of African Americans from the early colonial period up to 1865, in the context of general U.S. history. 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. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC.
HIST 29B  African American History since 1865
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 1A/1AH/1AMC/1AMCH and READ 100.
Repeatability: May be taken 1 time.
Surveys the history of African Americans from 1865 to the present, in the context of general U.S. history. 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. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC.

HIST 39A-Z  Historical Studies
1 - 3 units; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 1A/1AH/1AMC/1AMCH and READ 100.
Repeatability: May be taken 1 time.
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; 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.

HONORS
Human Arts and Social Sciences Division
Isabel O’Connor, Division Dean
Division Office, Room 420
Letitia Scott-Curtis, Lead Faculty, (831) 479-6353
Carolyn Jackson, Director, (831) 477-3505
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 786-4734 for appointment
http://www.cabrillohonors.org

HONORS COURSES
Students must be enrolled in the Honors Transfer Program to register for the following honors courses:
ANTHR 1H, ANTHR 2H, AH 11H, COMM 1H, ENGL 1AH, ENGL 1AMCH, ENGL 1BH, ENGL 2H, ENGL 2MCH, HIST 4AH, HIST 4BH, HIST 14H, HIST 17AH, HIST 17BH, HIST 21AH, HIST 21BH, HONRS 1H*, LIBR 10H, MATH 12H, PHILO 10H, PS 1H, PSYCH 1H, SOC 1H, SOC 2H
*Note: HONRS 1H does not transfer to the UC system.

HONORS 1H  Honors Colloquium
0.5 unit; 0.5 hour Lecture
Prerequisite: Honors Standing.
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken 1 time.
Provides an interdisciplinary colloquium on a selected topic each semester, designed to aid in students’ transition to the Honors Program and preparation of Honors projects for presentation at the regional Honors Symposium. Strengthens academic, cognitive and social skills, as well as introduces the aims and requirements of the Honors Program.
Transfer Credit: Transfers to CSU.

HORTICULTURE
Natural and Applied Sciences Division
Wanda Garner, Division Dean
Division Office, Room 701
Peter Shaw, Program Chair, (831) 479-6241
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 786-4734 for appointment
Call (831) 479-6328 for more information
http://www.cabrillo.edu/programs

General Horticulture and Crop Production A.S. Degree
Program Description:
The horticulture program prepares students for entry level to management jobs and self-employment in diverse horticulture businesses. It also provides a foundation for students 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.
The college offers two A.S. Degrees, two Certificates of Achievement and eight 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.
Program Learning Outcomes:
1. Critically assess a soil test and make recommendations. (Communication, Critical Thinking)
2. Construct an Integrated Pest Management program for a chosen crop. (Communication, Global Awareness)
3. Analyze the cost of production of various crops under different production techniques. (Communication, Critical Thinking)

A.S. General Education GE Units 21

Core Courses (37 units)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>HORT 1A</td>
<td>Basic Horticulture</td>
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<tr>
<td>HORT 1B</td>
<td>Basic Horticulture: Crop Production</td>
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<tr>
<td>HORT 2</td>
<td>Soil Science and Management</td>
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<tr>
<td>HORT 52</td>
<td>Greenhouse Design and Operation</td>
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<tr>
<td>HORT 54</td>
<td>Business Aspects of Horticulture</td>
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<tr>
<td>HORT 58</td>
<td>Irrigation Design, Installation and Conservation</td>
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</tr>
<tr>
<td>HORT 62</td>
<td>Fall Plant Materials and Design</td>
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and
HORT 63 Spring Plant Materials and Design ........... 3
and
HORT 199C Career Work Experience Education ........... 2
or
HORT 70 Organic Agriculture .......................... 3
and
HORT 71 Organic Food Production 1 ...................... 4
and
HORT 72 Organic Food Production 2 ...................... 1
HORT 100A Plant Propagation ............................. 1
HORT 125 Introduction to Hydroponic Food Production . 2
HORT 150 Pest Management ................................ 4

Approved Electives:
Any Horticulture Course Units ............................... 2
Total Units .................................................. 60

General Horticulture and Crop Production
Certificate of Achievement

Program Learning Outcomes:
1. Critically assess a soil test and make recommendations.
   (Communication, Critical Thinking)
2. Construct an Integrated Pest Management program for a chosen
crop. (Communication, Global Awareness)
3. Analyze the cost of production of various crops under different
   production techniques. (Communication, Critical Thinking)

Core Courses (35-37 units)
HORT 1A Basic Horticulture ................................. 4
HORT 18 Basic Horticulture: Crop Production ......... 4
HORT 2 Soil Science and Management ..................... 4
HORT 52 Greenhouse Design and Operation ............. 3
HORT 54 Business Aspects of Horticulture .......... 4
HORT 58 Irrigation Design, Installation and Conservation ....... 3
HORT 62 Fall Plant Materials and Design .......... 3
HORT 63 Spring Plant Materials and Design .......... 3
and
HORT 65 Landscape Design Graphics .................. 2
HORT 66 Landscape Design: Theory and Process ....... 3
HORT 150 Pest Management ............................... 4
HORT 164 California Native Plants & Plant Communities .... 2
HORT 172 Arboriculture .................................. 3
or
HORT 160B Edible Landscaping ......................... 3
or
HORT 162PC Introduction to Permaculture .......... 3
HORT 175 Sustainable Landscaping ................... 4
Total Units .................................................. 60

Landscape Horticulture A.S. Degree

Program Description:
The horticulture program prepares students for entry level to manage-
ment jobs and self-employment in diverse horticulture businesses. It
also provides a foundation for students in Ornamental Horticulture and
Landscape Architecture. It affords local horticulturists and working pro-
fessionals the means to upgrade their skills and knowledge.
Opportunities to obtain valuable experience are provided in the green-
house/garden facility and by working to enhance campus landscapes.

Program Learning Outcomes:
1. Critically assess a soil test and make recommendations.
   (Communication, Critical Thinking)
2. Construct an Integrated Pest Management program for a chosen
crop. (Communication, Global Awareness)
3. Design novel landscapes for the Central California Coast. (Problem
   Solving, Global Awareness, Professional Development)

A.S. General Education 21 Units

Core Courses (39 units)
HORT 1A Basic Horticulture ................................. 4
HORT 2 Soil Science and Management ..................... 4
HORT 54 Business Aspects of Horticulture ............. 4
HORT 58 Irrigation Design, Installation and Conservation ....... 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 150 Pest Management ............................... 4
HORT 164 California Native Plants & Plant Communities .... 2
HORT 172 Arboriculture .................................. 3
or
HORT 160B Edible Landscaping ......................... 3
or
HORT 162PC Introduction to Permaculture .......... 3
HORT 175 Sustainable Landscaping ................... 4
Total Units .................................................. 60
**Landscape Horticulture Certificate of Achievement**

**Program Learning Outcomes:**

1. Critically assess a soil test and make recommendations. (Communication, Critical Thinking)
2. Construct an Integrated Pest Management program for a chosen crop. (Communication, Global Awareness)
3. Design novel landscapes for the Central California Coast. (Problem Solving, Global Awareness, Professional Development)

**Core Courses (39 units)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>HORT 1A</td>
<td>Basic Horticulture</td>
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<td>HORT 2</td>
<td>Soil Science and Management</td>
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<td>HORT 58</td>
<td>Irrigation Design, Installation and Conservation</td>
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<td>HORT 62</td>
<td>Fall Plant Materials and Design</td>
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<td>HORT 63</td>
<td>Spring Plant Materials and Design</td>
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<td>HORT 65</td>
<td>Landscape Design Graphics</td>
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<td>HORT 66</td>
<td>Landscape Design: Theory and Process</td>
<td>3</td>
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<td>HORT 150</td>
<td>Pest Management</td>
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<tr>
<td>HORT 164</td>
<td>California Native Plants &amp; Plant Communities</td>
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<td>HORT 172</td>
<td>Arboriculture</td>
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<td>or</td>
<td>HORT 160B Edible Landscaping</td>
<td>3</td>
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<tr>
<td>or</td>
<td>HORT 162PC Introduction to Permaculture</td>
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</tr>
<tr>
<td>HORT 175</td>
<td>Sustainable Landscaping</td>
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**Other Required Courses (3 Units)**

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<td>or</td>
<td>ENGL 1A/1AH/1AMC/1AMCH</td>
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<tr>
<td>or</td>
<td>CABT 157 Business and Technical Writing</td>
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</table>

**Total Units** 42

**Arboriculture Skills Certificate**

**Program Learning Outcomes:**

1. Identify trees found on the ISA exam. (Critical Thinking, Professional Development)
2. Construct an Integrated Pest Management program for a chosen crop. (Communication, Global Awareness)

**Required Courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HORT 62</td>
<td>Fall Plant Materials and Design</td>
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<tr>
<td>HORT 63</td>
<td>Spring Plant Materials and Design</td>
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<td>HORT 150</td>
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<tr>
<td>HORT 162PR</td>
<td>Landscape Pruning</td>
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<td>HORT 172</td>
<td>Arboriculture</td>
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**Total Units** 13.5

**General Horticulture Skills Certificate**

**Program Learning Outcomes:**

1. Critically assess a soil test and make recommendations. (Communication, Critical Thinking)
2. Properly identify plants showing their best use and identification characteristics using the scientific name and common names. (Critical Thinking, Professional Development)

**Required Courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HORT 1A</td>
<td>Basic Horticulture</td>
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<tr>
<td>HORT 1B</td>
<td>Basic Horticulture: Crop Production</td>
<td>4</td>
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<tr>
<td>HORT 2</td>
<td>Soil Science and Management</td>
<td>4</td>
</tr>
<tr>
<td>HORT 150</td>
<td>Pest Management</td>
<td>4</td>
</tr>
</tbody>
</table>

**Total Units** 16

**Alternative Food Production Methods Skills Certificate**

**Program Learning Outcomes:**

1. Analyze current organic production techniques and justify which system is recommended for specific crops grown organically in the Monterey Bay area. (Global Awareness, Critical Thinking, Professional Development)
2. Critically assess crop nutritional needs. (Critical Thinking, Professional Development)

**Required Courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HORT 1A</td>
<td>Basic Horticulture</td>
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<td>HORT 2</td>
<td>Soil Science and Management</td>
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<td>HORT 70</td>
<td>Organic Agriculture</td>
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<tr>
<td>HORT 125</td>
<td>Introduction to Hydroponic Food Production</td>
<td>2</td>
</tr>
<tr>
<td>HORT 150</td>
<td>Pest Management</td>
<td>4</td>
</tr>
</tbody>
</table>

**Total Units** 17
Greenhouse and Nursery Management Skills Certificate

Program Learning Outcomes:
1. Analyze the cost of production of various crops under different production techniques. (Communication, Critical Thinking, Problem Solving)
2. Justify propagation techniques used for specific nursery crops. (Communication, Problem Solving)

Required Courses:
- HORT 1A Basic Horticulture: 4 units
- HORT 1B Basic Horticulture: Crop Production: 4 units
- HORT 52 Greenhouse Design and Operation: 3 units
- HORT 100A Plant Propagation: 1 unit
- HORT 150 Pest Management: 4 units

Total Units: 16

Home Horticulture Skills Certificate

Program Learning Outcomes:
1. Critically assess a soil test and make recommendations. (Communication, Critical Thinking)
2. Construct an Integrated Pest Management program for a chosen crop. (Communication, Global Awareness)

Required Courses:
- HORT 1A Basic Horticulture: 4 units
- HORT 100A Plant Propagation: 1 unit
- HORT 150 Pest Management: 4 units
- HORT 160B Edible Landscaping: 3 units
- HORT 175 Sustainable Landscaping: 4 units

Total Units: 16

Landscape Design Skills Certificate

Program Learning Outcomes:
1. Assess components of a sustainable landscape. (Global Awareness, Professional Development)
2. Design novel landscapes for the Central California Coast. (Problem Solving, Global Awareness, Professional Development)

Required Courses:
- HORT 62 Fall Plant Materials and Design: 3 units
- HORT 63 Spring Plant Materials and Design: 3 units
- HORT 65 Landscape Design Graphics: 2 units
- HORT 66 Landscape Design: Theory and Process: 3 units
- HORT 175 Sustainable Landscaping: 4 units

Total Units: 15

Landscaping Skills Certificate

Program Learning Outcomes:
1. Critically assess a soil test and make recommendations. (Communication, Critical Thinking)
2. Identify and analyze plants showing their best use and identification characteristics using the scientific name and common names. (Critical Thinking, Professional Development)

Required Courses:
- HORT 2 Soil Science and Management: 4 units
- HORT 62 Fall Plant Materials and Design: 3 units
- HORT 63 Spring Plant Materials and Design: 3 units
- HORT 65 Landscape Design Graphics: 2 units
- HORT 66 Landscape Design: Theory and Process: 3 units
- HORT 175 Sustainable Landscaping: 4 units

Total Units: 16

Horticulture Courses

HORT 1A Basic Horticulture
4 units; 3 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.
Surveys careers and the history of horticulture as well as horticultural plant science including plant growth and development, plant taxonomy, nomenclature and plant adaptations for survival in a Mediterranean climate.
Transfer Credit: Transfers to CSU.

HORT 1B Basic Horticulture: Crop Production
4 units; 3 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.
Surveys the production of ornamental and landscape plants to gain a working knowledge of how light, temperature, water, fertilizers, and soilless 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 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.

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; UC pending review.*

HORT 52  
**Greenhouse Design and Operation**

3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.

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**

4 units; 3 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.

Focuses on starting and managing horticultural businesses, including licenses required, developing a business plan, sales, marketing, computer invoicing, and record keeping and legal requirements of employers. Discusses myriad of employment opportunities, especially niche markets. Labs include field trips and retail/inventory training for departmental plant sales.

*Transfer Credit: Transfers to CSU.*

HORT 57  
**Landscape Construction**

3 units; 2 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.

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 Design, Installation and Conservation**

3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.

Introduces the fundamentals of irrigation system design, conservation, and water auditing for landscapes and agriculture.

*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 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.

Covers the identification of the common 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 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.

Covers the identification 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 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.

Introduces graphic techniques of landscape design using various media to create base plans, plan views, and elevation drawings.

*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 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.

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 70  
**Organic Agriculture**

3 units; 3 hours Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.

Introduces organic agriculture with an emphasis on organic food production and a practical understanding of the philosophy, principles and practices of organic crops.

*Transfer Credit: Transfers to CSU.*
HORT 71  Organic Food Production 1
4 units; 3 hours Lecture, 3 hours Laboratory
Prerequisite: HORT 70 or equivalent experience.
Recommended Preparation: Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.
Continues the theory and practices of good management begun in HORT 70 emphasizing springtime, commercial scale, local area, organic vegetable, fruit and flower crops. Emphasizes the scientific, economic and social basis for good management practices. Designed primarily for students planning a management career in organic horticulture. Includes instruction for obtaining the IOIA Certificate: USDA NOP Organic Crop Standards Training.
Transfer Credit: Transfers to CSU.

HORT 72  Organic Food Production 2
1 unit; 0.5 hour Lecture, 1.5 hours Laboratory
Prerequisite: HORT 71 or equivalent experience.
Recommended Preparation: Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.
Continues the theory and practices of good management agriculture begun in HORT 71 emphasizing summertime, commercial scale, local area, organic vegetable, fruit and flower crops. Emphasizes the scientific, economic and social basis for good management practices. Explores organic farming and farm business, and is designed primarily for students planning a management career in organic horticulture.
Transfer Credit: Transfers to CSU.

HORT 100A  Plant Propagation
1 unit; 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.
Prepares 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 125  Introduction to Hydroponic Food Production
2 units; 1 hour Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.
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 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.
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 160B  Edible Landscaping
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.
Provides an introduction to designing, growing and harvesting edible plants in the landscape with a focus on fruits and vegetables as well as food issues highlighting the value of whole food diets using documentary films.

HORT 162AZ  Current Topics in Horticulture
0.5 - 4 units; 0.5 hour Lecture or 1.5 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.
Prepares 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 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.
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 172  Arboriculture
3 units; 2 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.
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 be covered.
HORT 175 Sustainable Landscaping
4 units; 3 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.
Encompasses sustainable landscaping theories and practices including designing, installing and maintaining ecologically sound landscapes through renovating existing gardens with living walls, green roofs, permeable hardscapes and rain water catchment systems, appropriate plant selection, and water conservation and irrigation.

HUMAN SERVICES
Health, Athletics, Wellness, and Kinesiology Division
Ian Haslam, Division Dean
Division Office, Room 1102
Patrick Meyer, Program Chair, (831) 479-6210
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 786-4734
Call (831) 479-6266 or (831) 479-5087 for more information
http://www.cabrillo.edu/programs
Human Services A.S. Degree
Program Description:
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. Students 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. A second specialization in Drug and Alcohol Studies prepares students for work in the Drug and Alcohol treatment field. This curriculum is accredited by the California Association for Alcohol and Drug Educators and meets the educational requirements for certification by the state of California as a Drug and Alcohol Counselor.
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.

A.S. General Education
Core Courses (24.5-27 units)

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<th>Title</th>
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<td>HSERV 51</td>
<td>Practices in the Human Services</td>
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<td>HSERV 52</td>
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<td>General Psychology</td>
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<td>PSYCH 37ABC</td>
<td>Values and Decision Making</td>
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<td>PSYCH 39ABC</td>
<td>Relationships: Marriage and Family</td>
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<td>HSERV 99SL</td>
<td>Service Learning Work Experience Education</td>
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<td>COMM 12</td>
<td>Intercultural Communication</td>
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<td>Contemporary Social Problems</td>
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<td>SEC 2H</td>
<td>Honors Contemporary Social Problems</td>
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Approved Electives from any course or specialty below (11 units)

<table>
<thead>
<tr>
<th>Units</th>
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<tr>
<td>1-4</td>
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Any Human Services (HSERV) class

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<tr>
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<tr>
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<tr>
<td>CABT 101</td>
<td>Computer Proficiency</td>
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<td>CG 1</td>
<td>College Success</td>
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<tr>
<td>CG 60A</td>
<td>Introduction to Peer Counseling I</td>
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<tr>
<td>ECE 31</td>
<td>Child Growth and Development</td>
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<td>ECE 32</td>
<td>Child, Family and Community</td>
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<tr>
<td>HS 10</td>
<td>Personal Health</td>
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<tr>
<td>MA 184</td>
<td>Health Care Communication</td>
<td>2</td>
</tr>
<tr>
<td>KIN 13</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>
<td>3</td>
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<tr>
<td>PSYCH 33</td>
<td>Personal and Social Adjustment</td>
<td>3</td>
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<tr>
<td>PSYCH 35ABC</td>
<td>Death and Dying</td>
<td>3</td>
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<td>SPAN 1</td>
<td>Elementary Spanish I</td>
<td>3</td>
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<tr>
<td>WS 1</td>
<td>Introduction to Women’s Studies</td>
<td>3</td>
</tr>
<tr>
<td>WS 7</td>
<td>Psychology of Women</td>
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Drug and Alcohol Studies Courses

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>HSERV 53</td>
<td>Techniques of Group Counseling in the Human Services</td>
<td>2</td>
</tr>
<tr>
<td>HSERV 99SL</td>
<td>Service Learning Work Experience Education</td>
<td>0.5-3</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>
</tr>
<tr>
<td>HSERV 163</td>
<td>Prevention: Alcohol and Other Drugs</td>
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<tr>
<td>HSERV 164</td>
<td>Ethics: Personal and Professional Growth in the Human Services</td>
<td>2-4</td>
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Aging Courses

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>HSERV 70</td>
<td>Introduction to Human Aging</td>
<td>3</td>
</tr>
<tr>
<td>HSERV 71</td>
<td>Aging and Human Services</td>
<td>3</td>
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Mental Health Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>HSERV 170</td>
<td>Fundamentals of Mental Health</td>
<td>3</td>
</tr>
<tr>
<td>HSERV 174</td>
<td>Fundamentals of Children’s Mental Health</td>
<td>3</td>
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Disability Studies Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>HSERV 180</td>
<td>Disability and Society</td>
<td>3</td>
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Electives:
(Any Course numbered 1-199)

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Total Units

<table>
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Human Services Generalist Practice Certificate of Achievement

Human Services Core Courses (15 units)

<table>
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<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
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<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>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>PSYCH 1H Honors General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 39ABC</td>
<td>Relationships: Marriage and Family</td>
<td>3</td>
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Human Services Generalist Practice Core Courses (11 units)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
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</thead>
<tbody>
<tr>
<td>COMM 12</td>
<td>Intercultural Communication</td>
<td>3</td>
</tr>
<tr>
<td>HSERV 99SL</td>
<td>Service Learning Work Experience Education</td>
<td>2</td>
</tr>
<tr>
<td>PSYCH 37ABC</td>
<td>Values and Decision Making</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>SOC 2 Contemporary Social Problems</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>SOC 2H Honors Contemporary Social Problems</td>
<td>3</td>
</tr>
</tbody>
</table>
| Other Required Courses:
  | ENGL 100 Elements of Writing                     | 3     |
  | or                                                 |       |
  | ENGL 1A/1AH/1AMC/1AMCH                           | 3     |
  | or                                                 |       |
  | CAbT 157 Business and Technical Writing          | 3     |

Total Units 29

Human Services Drug and Alcohol Studies Skills Certificate

Required Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</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 52</td>
<td>Introduction to Counseling and Case Management</td>
<td>3</td>
</tr>
<tr>
<td>HSERV 99SL</td>
<td>Service Learning Work Experience Education</td>
<td>2</td>
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<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>
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Total Units 17

Human Services Generalist Practice Skills Certificate

Required Courses:

<table>
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<th>Course Code</th>
<th>Course Name</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>HSERV 99SL</td>
<td>Service Learning Work Experience Education</td>
<td>2</td>
</tr>
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</table>

Total Units 11

Human Services Courses

HSERV 50  Introduction to the Human Services
3 units; 3 hours Lecture
Corequisite: HSERV 99SL.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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.
Transfer Credit: Transfers to CSU.

HSERV 51  Practices in the Human Services
3 units; 3 hours Lecture
Corequisite: HSERV 99SL.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Focuses on appropriate interventions, technologies, and strategies for the delivery of Human Services. Provides practical knowledge of communication, cultural competency, case management, referral, home visitation, alcohol and drug abuse, HIV, STD, abuse, neglect, gerontology, disability, and other issues.
Transfer Credit: Transfers to CSU.

HSERV 52  Introduction to Counseling and Case Management
3 units; 3 hours Lecture
Corequisite: HSERV 99SL.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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.
Transfer Credit: Transfers to CSU.

HSERV 53  Techniques of Group Counseling in the Human Services
2 units; 2 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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.
Transfer Credit: Transfers to CSU.
HSERV 59AZ  Special Topics in the Human Services
0.5 - 3 units; 0.5 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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. Transfer Credit: Transfers to CSU.

HSERV 70  Introduction to Human Aging
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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. Transfer Credit: Transfers to CSU.

HSERV 71  Aging and Human Services
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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. Transfer Credit: Transfers to CSU.

HSERV 160  Introduction to Chemical Dependency Issues
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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.
Repeatability: May be taken 1 time.
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.
Repeatability: May be taken 1 time.
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  Prevention: Alcohol and Other Drugs
1 unit; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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 1 time.
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.
HSERV 170  Fundamentals of Mental Health
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Introduces the principles and theories of mental health and human behavior, diagnosis, treatment and care. Examines the history of mental health practices and introduces the student to symptoms and classification systems, psychotropic medications, coping mechanisms, therapies and community care, and discusses ethical issues in the mental health field.

HSERV 174  Fundamentals of Children's Mental Health
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Introduces the principles and theories of infant, toddler and children’s mental health and mental illness. Examines child development, identifying abnormal mental development and explores options for treatment. Develops strategies to promote positive human service relationships with mentally ill children and their families.

HSERV 180  Disability and Society
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Explores disability as an element of human diversity and investigates the incidence and prevalence of disability around the world, the historical changes in concepts of disability, and the appreciation of disability as a natural human phenomenon that both influences and is influenced by the environment.

INTERNATIONAL STUDIES
Human Arts and Social Sciences Division
Isabel O’Connor, Division Dean
Division Office, Room 420
Rory O’Brien, Program Chair, (831) 479-6334
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 786-4734
Call (831) 479-6297 for more information
http://www.cabrillo.edu/programs

International Studies  A.A. Degree
Program Description:

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 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

An Associate Degree requires 60 units appropriate to your educational goal, to include general education and at least 18 units in a major. Courses should be selected to meet the lower-division major preparation requirements at your intended transfer university-these specific requirements can be found at www.assist.org for 4-year public institutions in California. Please see a counselor for advisement to ensure you are taking the best possible courses given your goal.

The department presents the following suggested model program for this major. The courses listed below may or may not be appropriate depending on your specific goal. Please see a counselor for advisement for transfer to any 4-year institution.

A.A. General Education  30 Units
Core Courses (15-18 Units)  Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
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<td>ANTHR 2</td>
<td>3</td>
</tr>
<tr>
<td>or ANTHR 2H</td>
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<tr>
<td>ECON 1A</td>
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<tr>
<td>ECON 1B</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 2</td>
<td>3</td>
</tr>
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<td>HIST 4A</td>
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<tr>
<td>or HIST 4AH</td>
<td>3</td>
</tr>
<tr>
<td>HIST 4B</td>
<td>3</td>
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<tr>
<td>or HIST 4BH</td>
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<td>PS 1</td>
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Choose 1 of the following series (10-20 Units)  Units

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<td>or SPAN 2</td>
<td>5</td>
</tr>
<tr>
<td>or SPAN 3</td>
<td>5</td>
</tr>
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</table>
ITALIAN

Business, English, and Language Arts Division
James Weckler, Division Dean
Division Office, Room 301
Nancy Stucker, Program Chair, (831) 477-3221
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 786-4734
Call (831) 479-6400 for more information
http://www.cabrillo.edu/programs

Italian Courses

ITAL 1  Elementary Italian I
5 units; 5 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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.
Transfer Credit: Transfers to CSU; UC.

ITAL 2  Elementary Italian II
5 units; 5 hours Lecture
Prerequisite: ITAL 1 or two years of high school Italian, or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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.
Transfer Credit: Transfers to CSU; UC.

ITAL 3  Intermediate Italian I
5 units; 5 hours Lecture
Prerequisite: ITAL 2 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Develops further skills acquired in first-year Italian and reviews and expands grammar and vocabulary. Presents Italian culture through reading and discussion of literary and cultural texts and develops writing skills.
Transfer Credit: Transfers to CSU; UC.

ITAL 4  Intermediate Spanish II
5 units
Recommended Units
MATH 12  Elementary Statistics
5 units
or
MATH 12H  Honors Elementary Statistics
5 units
Total Units
60

ITAL 10  Italian Conversation
3 units; 3 hours Lecture
Prerequisite: ITAL 2 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Develops basic conversational skills with attention to accuracy, vocabulary, and pronunciation. Students discuss culturally relevant topics and situations drawn from written and audiovisual sources.
Transfer Credit: Transfers to CSU; UC.

JAPANESE

Business, English, and Language Arts Division
James Weckler, Division Dean
Division Office, Room 301
Nancy Stucker, Program Chair, (831) 477-3221
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 786-4734
Call (831) 479-6400 for more information
http://www.cabrillo.edu/programs

Japanese Courses

JAPAN 1  Elementary Japanese I
5 units; 5 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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.
Transfer Credit: Transfers to CSU; UC.

JAPAN 2  Elementary Japanese II
5 units; 5 hours Lecture
Prerequisite: JAPAN 1 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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.
Transfer Credit: Transfers to CSU; UC.
JOURNALISM

Business, English, and Language Arts Division
James Weckler, Division Dean
Division Office, Room 301
Bradley Kava, Program Chair, (831) 477-3206
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 786-4734
Call (831) 479-6400 for more information
www.cabrillo.edu/programs

Journalism A.A. Degree

Program Description:
The Journalism transfer is designed to provide the lower division course work 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
An Associate Degree requires 60 units appropriate to your educational goal, to include general education and at least 18 units in a major. Courses should be selected to meet the lower-division major preparation requirements at your intended transfer university; these specific requirements can be found at www.assist.org for 4-year public institutions in California. Please see a counselor for advisement to ensure you are taking the best possible courses given your goal.
The department presents the following suggested model program for this major. The courses listed below may or may not be appropriate depending on your specific goal. Please see a counselor for advisement for transfer to any 4-year institution.

A.A. General Education

Core Courses (9 units)
JOURN 21 Mass Communications 3
JOURN 23A Reporting for the News Media 3
ENGL 1B Composition and Literature 3
ENGL 1BH Honors Composition and Literature 3
or
ENGL 1BMC Composition and Literature: Multicultural Emphasis 3

Approved Electives (11 Units)
ART 27 Graphic Design 3
ART 28 Lettering/Typography 3
AP 9A Beginning Photography 3
JOURN 20A Introduction to Photojournalism 3
JOURN 35 Writing for the Broadcast Media 3
DM 1 Introduction to Digital Media 4
DM 2 Digital Publishing I 3
COMM 10 Communication Process 3

Other Required Courses (3 units)
ENGL 100 Elements of Writing 3
or
ENGL 1A/1AH/1AMC/1AMCH 3

Total Units 60

Journalism Certificate of Achievement

Core Courses
JOURN 20A Introduction to Photojournalism 3
JOURN 21 Mass Communications 3
JOURN 23A Reporting for the News Media 3
JOURN 53 Newspaper Production 1

Approved Electives (6 Units)
AP 9A Beginning Photography 3
ART 27 Graphic Design 3
ART 28 Lettering/Typography 3
JOURN 2 Special Projects in Journalism 3
JOURN 20B Press Photo Bureau 3
JOURN 35 Writing for the Broadcast Media 3
JOURN 199C Career Work Experience Education 0.5-3
DM 1 Introduction to Digital Media 4
DM 2 Digital Publishing I 3
COMM 10 Communication Process 3

Other Required Courses (3 units)
ENGL 100 Elements of Writing 3
or
ENGL 1A/1AH/1AMC/1AMCH 3

Total Units 19

Journalism Courses

JOURN 2 Special Projects in Journalism
1 - 3 units; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

This course concentrates on some dimension or aspect of journalism not covered in regular journalism courses.
Transfer Credit: Transfers to CSU.

JOURN 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 1 time.

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 also provide the photographs for the college newspaper, The Voice. Requires access to a digital camera.
Transfer Credit: Transfers to CSU. C-ID JOUR 160
JOURN 20B  Press Photo Bureau
3 units; 2 hours Lecture, 3 hours Laboratory
Prerequisite: JOURN 20A, AP 9A, AP 9B.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Trains photographers to shoot and process digital photos for the college newspaper's print edition and its companion online news website. Requires access to a digital camera.
Transfer Credit: Transfers to CSU.

JOURN 21  Mass Communications
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Surveys and measures the impact of mass media, including television, film, radio, newspapers, advertising, Internet and digital media. Explores mass media's historical and contemporary effects at the individual, national, and global level. Covers theories of mass communication and introduces basic production in video, podcasting, and Internet content. Emphasizes the ethical, moral and legal influences of the media on gender and racial issues.
Transfer Credit: Transfers to CSU; UC. C-ID JOUR 100

JOURN 23A  Reporting for the News Media
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Corequisite: JOURN 53.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Teaches the basics of newsgathering and writing for newspapers and online news websites. Students participate in producing the college newspaper.
Transfer Credit: Transfers to CSU.

JOURN 35  Writing for the Broadcast Media
3 units; 3 hours Lecture
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken 1 time.
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.

JOURN 53  Newspaper Production
1 - 3 units; 3 hours Laboratory
Recommended Preparation: DM 2 or equivalent skills; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Introduces design techniques and software to produce page layouts for the college newspaper.
Transfer Credit: Transfers to CSU.
KINESIOLOGY  
(formerly Physical Education)  

Health, Athletics, Wellness, and Kinesiology Division  
Ian Haslam, Division Dean  
Division Office, Room 1102  
Onnie Killefer, Program Chair, (831) 479-6581  
Aptos Counselor: (831) 479-6274 for appointment  
Watsonville Counselor: (831) 786-4734  

Call (831) 479-6266 for more information  
http://www.cabrillo.edu/programs

Kinesiology A.A.-T Degree  
Program Description:  
Kinesiology is the academic discipline concerned with the art and science of human movement. Kinesiology may also be listed as Physical Education or Human Performance at some campuses. Students may pursue Bachelor’s and graduate degrees with emphasis in adaptive physical education, athletic training, physical therapy, dance, movement sciences, sports management, teaching and coaching which provide numerous career opportunities in both the public and private sectors.  

Cabrillo offers options for degrees in Kinesiology. The first option listed below is an Associate in Arts in Kinesiology for Transfer (A.A.-T), which is intended for students who plan to complete a bachelor’s degree in a similar major at a CSU campus. Students completing these degrees are guaranteed admission to the CSU system, but not to a particular campus or major. See Associate Degree for Transfer information in the Cabrillo College Catalog. Students pursuing transfer to a specific campus or major concentration should pay careful attention to the courses they choose from List A to assure major preparation for their preferred campus.

The second option fulfills requirements for an A.A. Degree in Kinesiology at Cabrillo College.

Completion of CSU or IGETC  
General Education Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>KIN 2 Introduction to Kinesiology</td>
<td>3</td>
</tr>
<tr>
<td>BIO 4 Human Anatomy</td>
<td>4</td>
</tr>
<tr>
<td>BIO 5 Human Physiology</td>
<td>4</td>
</tr>
</tbody>
</table>

Movement Based Courses (3 units)  
Choose a maximum of one course each from 3 of the following areas: Aquatics, Dance, Fitness, Individual Sports and/or Team Sports:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>KIN 60A Beginning Swimming</td>
<td>3</td>
</tr>
<tr>
<td>KIN 60B Intermediate Swimming</td>
<td>0.5 - 2</td>
</tr>
<tr>
<td>KIN 60C Advanced Swimming</td>
<td>0.5 - 2</td>
</tr>
<tr>
<td>KIN 61A Beginning Swim Fitness</td>
<td>0.5 - 3</td>
</tr>
<tr>
<td>KIN 61B Intermediate Swim Fitness</td>
<td>0.5 - 3</td>
</tr>
<tr>
<td>KIN 61C Advanced Swim Fitness</td>
<td>0.5 - 3</td>
</tr>
<tr>
<td>DANCE 12A Choreography I</td>
<td>0.5 - 3</td>
</tr>
<tr>
<td>DANCE 12B Choreography II</td>
<td>0.5 - 3</td>
</tr>
<tr>
<td>KIN 10A Athletic Training: Injury Prevention, Evaluation and Care</td>
<td>3</td>
</tr>
</tbody>
</table>

KIN 27A Beginning Weight Training | 0.5 - 2
KIN 27B Intermediate Weight Training | 0.5 - 2
KIN 37A Beginning Hatha Yoga | 0.5 - 2
KIN 37B Intermediate Hatha Yoga | 0.5 - 2
KIN 55 Sports Conditioning | 0.5 - 3
KIN 40A Beginning Golf | 0.5 - 2
KIN 40B Intermediate Golf | 0.5 - 2
KIN 40C Advanced Golf | 0.5 - 2
KIN 43A Beginning Tennis | 0.5 - 2
KIN 43B Intermediate Tennis | 0.5 - 2
KIN 43C Advanced Tennis | 0.5 - 2
KIN 47A Beginning Basketball | 0.5 - 2
KIN 47B Intermediate Basketball | 0.5 - 2
KIN 47C Advanced Basketball | 0.5 - 2
KIN 50A Beginning Soccer | 0.5 - 2
KIN 50B Intermediate Soccer | 0.5 - 2
KIN 50C Advanced Soccer | 0.5 - 2
KIN 53A Beginning Softball | 0.5 - 2
KIN 53B Intermediate Softball | 0.5 - 2
KIN 53C Advanced Softball | 0.5 - 2
KIN 54A Beginning Volleyball | 0.5 - 2
KIN 54B Intermediate Volleyball | 0.5 - 2
KIN 54C Advanced Volleyball | 0.5 - 2

List A - Choose 6 units from the courses below:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 12 Elementary Statistics</td>
<td>5</td>
</tr>
<tr>
<td>MATH 12H Honors Elementary Statistics</td>
<td>5</td>
</tr>
<tr>
<td>PSYCH 2A Statistics for Behavioral Sciences</td>
<td>3</td>
</tr>
<tr>
<td>BIO 13B Biology of People-Human Genetics</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 1A General Chemistry I</td>
<td>5</td>
</tr>
</tbody>
</table>
Kinesiology A.A. Degree

Model Program for Kinesiology

An Associate Degree requires 60 units appropriate to your educational goal, to include general education and at least 18 units in a major. Courses should be selected to meet the lower-division major preparation requirements at your intended transfer university; these specific requirements can be found at www.assist.org for 4-year public institutions in California. Please see a counselor for advisement to ensure you are taking the best possible courses given your goal.

The department presents the following suggested model program for this major. The courses listed below may or may not be appropriate depending on your specific goal. Please see a counselor for advisement for transfer to any 4-year institution.

Kinesiology A.A. Degree

Model Program for Kinesiology

A.A. General Education 30 Units

Core Courses (15 units)
- BIO 4 Human Anatomy 4
- BIO 5 Human Physiology 4
- KIN 2 Introduction to Kinesiology 3
- KIN Activity Classes 4

Approved Electives (6 Units)
- KIN 4 Introduction to Personal Training 3
- KIN 8 Weight Management 2
- KIN 10A Athletic Training: Injury Prevention, Evaluation and Care 3
- KIN 10B Athletic Training: Treatment and Rehabilitation of Athletic Injuries 3
- KIN 13 First Aid: Responding to Emergencies 3
- KIN 15 Community Cardio Pulmonary Resuscitation 0.5

Recommended from Related Disciplines (9 Units)
- CAHM 20 Nutrition 3
- CHEM 30A Inorganic Chemistry for Health Occupations 4
- MATH 12 Elementary Statistics 5
- or MATH 12H Honors Elementary Statistics 5
- PSYCH 1 General Psychology 3
- or PSYCH 1H Honors General Psychology 3
- PHYS Any Course 3-5

Total Units 60

Note: BIO, MATH, CHEM, PHYS, and PSYCH courses are also general education courses.

Kinesiology Courses

KIN 2 Introduction to Kinesiology

3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Introduces an interdisciplinary approach to the study of human movement. An overview of the importance of the sub-disciplines in kinesiology will be discussed along with career opportunities in the area of teaching, coaching, allied health, and fitness professions.

Transfer Credit: Transfers to CSU. C-ID KIN 100

KIN 3 Introduction to College and Intercollegiate Athletics

3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

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.

KIN 4 Introduction to Personal Training

3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Prepares students to pass a national exam in Personal Training (NSCA, NASM, ACE). Topics include health screening, strength/fitness assessment, basic exercise science and program design. Appropriate for students considering careers in personal training, group exercise, physical therapy, and athletic training. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.

Transfer Credit: Transfers to CSU.

KIN 8 Weight Management

2 units; 1 hour Lecture, 2 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

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.

KIN 10A Athletic Training: Injury Prevention, Evaluation and Care

3 units; 3 hours Lecture
Recommended Preparation: BIO 4; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Introduces the profession of athletic training including recognition, initial care, rehabilitation, and taping techniques of common athletic injuries. Athletic injury prevention will be emphasized through pre-participation physical exams, exercise, programs, preventative taping and wrapping, proper fitting of equipment, and protective braces.

Transfer Credit: Transfers to CSU; UC.
KIN 10AL  Clinical Experience in Sports Medicine I
1 - 2 units; 2 hours Laboratory
Recommended Preparation: BIO 4; Eligibility for ENGL 100 and READ 100. Hybrid Requisite: Completion of or concurrent enrollment in KIN 10A. Repeatability: May be taken 1 time.
Provides the opportunity to apply the skills and knowledge acquired in KIN 10A, and provides practical exposure to the athletic training profession. Under the supervision of a Certified Athletic Trainer, students will assist in the prevention, evaluation, treatment and rehabilitation of injuries to student-athletes. Transfer Credit: Transfers to CSU.

KIN 10B  Athletic Training: Treatment and Rehabilitation of Athletic Injuries
3 units; 3 hours Lecture
Recommended Preparation: BIO 4; Eligibility for ENGL 100 and READ 100. Repeatability: May be taken 1 time.
Focuses on the follow up treatment of athletic injuries including the phases of tissue healing and basic components and goals of a rehabilitation program. Topics include therapeutic exercise, therapeutic modalities and other forms rehabilitation such as physical therapy, chiropractic care, and acupuncture. Transfer Credit: Transfers to CSU.

KIN 10BL  Clinical Experience in Sports Medicine II
1 - 2 units; 2 hours Laboratory
Prerequisite: KIN 10AL Corequisite: KIN 10B. Recommended Preparation: BIO 4; Eligibility for ENGL 100 and READ 100. Repeatability: May be taken 1 time.
Provides the opportunity to apply the skills and knowledge acquired in KIN 10B, and provides further practical exposure to the athletic training profession. Under the supervision of a certified athletic trainer, students will assist in the prevention, evaluation, and treatment of student-athletes. Transfer Credit: Transfers to CSU.

KIN 10CL  Clinical Experience in Sports Medicine III
1 - 2 units; 2 hours Laboratory
Prerequisite: KIN 10BL or equivalent skills. Recommended Preparation: BIO 4; Eligibility for ENGL 100 and READ 100. Repeatability: May be taken 1 time.
Provides continued practical exposure to athletic training and increases student proficiency in athletic training competencies. Under the supervision of a Certified Athletic Trainer, students will assist in the prevention, evaluation, treatment and rehabilitation of injuries to student-athletes with an increasing degree of independence. Transfer Credit: Transfers to CSU.

KIN 10DL  Clinical Experience in Sports Medicine IV
1 - 2 units; 3 hours Laboratory
Prerequisite: KIN 10CL or equivalent skills. Recommended Preparation: Eligibility for ENGL 100 and READ 100. Repeatability: May be taken 1 time.
Provides continued practical exposure to athletic training and increases student proficiency in athletic training competencies learned in KIN 10CL. Under the supervision of a Certified Athletic Trainer, students will assist in the prevention, evaluation, treatment and rehabilitation of injuries to student-athletes with an increasing degree of independence. Transfer Credit: Transfers to CSU.

KIN 13  First Aid: Responding to Emergencies
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100. Repeatability: May be taken 1 time.
Details the theory and demonstration of first aid care of the injured with certification in American Red Cross "Responding to Emergencies and Community CPR." May be offered in a Distance-Learning Format. Transfer Credit: Transfers to CSU; UC, with limits: KIN 13 & 15 combined – maximum credit, 1 course. C-ID KIN 101

KIN 15  Community Cardio Pulmonary Resuscitation
0.5 unit; 0.5 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100. Repeatability: May be taken 1 time.
Provides certification in American Red Cross Community CPR. Provides training care for the adult, child, and infant victim. Transfer Credit: Transfers to CSU; UC, with limits: KIN 13 & 15 combined – maximum credit, 1 course.

KIN 27A  Beginning Weight Training
0.5 - 2 units; 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100. Repeatability: May be taken 1 time.
Provides instruction for the beginning student on the biomechanics of strength training, muscle trainability, and training principles using machines, free weights and body weight. Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity courses combined: maximum credit-4 units.

KIN 27B  Intermediate Weight Training
0.5 - 2 units; 1 hour Laboratory
Recommended Preparation: KIN 27A; Eligibility for ENGL 100 and READ 100. Repeatability: May be taken 1 time.
Provides instruction for the intermediate student on the biomechanics of strength training, muscle trainability, and training principles using machines, free weights, and body weight. Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity courses combined: maximum credit-4 units.
KIN 31A  Beginning Total Fitness
0.5 - 2 units; 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Provides cardiovascular conditioning, strength training, flexibility exercises, and instruction in concepts relative to physical fitness for the beginning student.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity courses combined: maximum credit-4 units.

KIN 31B  Intermediate Total Fitness
0.5 - 2 units; 1 hour Laboratory
Recommended Preparation: KIN 31A; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Provides cardiovascular conditioning, strength training, flexibility exercises, and instruction in concepts relative to physical fitness for the intermediate student.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity courses combined: maximum credit-4 units.

KIN 34A  Beginning Core Performance
0.5 - 2 units; 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Provides instruction in an approach to fitness using functional and core training for the beginning student.
Transfer Credit: Transfers to CSU.

KIN 34B  Intermediate Core Performance
0.5 - 2 units; 1 hour Laboratory
Recommended Preparation: KIN 34A; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Provides instruction in an approach to fitness using functional and core training for the intermediate student.
Transfer Credit: Transfers to CSU.

KIN 37A  Beginning Hatha Yoga
0.5 - 2 units; 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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 for the beginning student. Develops awareness in the physical body to establish the mind/body connection.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity courses combined: maximum credit-4 units.

KIN 37B  Intermediate Hatha Yoga
0.5 - 2 units; 1 hour Laboratory
Recommended Preparation: KIN 37A; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Provides instruction on asanas with attention to breath awareness and detail of postural alignment of the body for the intermediate student. Develops awareness and consciousness in the physical body to establish the mind/body connection.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity courses combined: maximum credit-4 units.

KIN 38A  Beginning Yoga and Stress Reduction
0.5 - 2 units; 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Explores the eight limbs of yoga as a method for reducing stress, improving well-being, and cultivating the connection of mind and body for the beginning student. Introduces postures, meditation, breathing techniques, skills and guidelines that promote health and ethical living.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity courses combined: maximum credit-4 units.

KIN 38B  Intermediate Yoga and Stress Reduction
0.5 - 2 units; 1 hour Laboratory
Recommended Preparation: KIN 38A; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Explores the eight limbs of yoga as a method for reducing stress, improving well-being, and cultivating the connection of mind and body for the intermediate student. Introduces postures, meditation, breathing techniques, skills and guidelines that promote health and ethical living.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity courses combined: maximum credit-4 units.

KIN 39A  Beginning Gyrokinesis® Movement Yoga
0.5 - 2 units; 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Re-educates and invigorates the body to move with fluidity, relaxation, and power by rhythmic exercise for the beginning student.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity courses combined: maximum credit-4 units.

KIN 39B  Intermediate Gyrokinesis® Movement Yoga
0.5 - 2 units; 1 hour Laboratory
Recommended Preparation: KIN 39A; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Re-educates and invigorates the body to move with fluidity, relaxation, and power by rhythmic exercise for the intermediate student.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity courses combined: maximum credit-4 units.
KIN 40A  Beginning Golf  
0.5 - 2 units; 1 hour Laboratory  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Provide instruction on the fundamentals, techniques, rules and etiquette of golf for the beginning student.  
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity courses combined: maximum credit-4 units.

KIN 40B  Intermediate Golf  
0.5 - 2 units; 1 hour Laboratory  
Recommended Preparation: KIN 40A; Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Provide instruction on the fundamentals, techniques, rules and etiquette of golf for the intermediate student.  
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity courses combined: maximum credit-4 units.

KIN 40C  Advanced Golf  
0.5 - 2 units; 1 hour Laboratory  
Recommended Preparation: KIN 40B; Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Provide instruction on advanced techniques and strategy that simulate situations occurring during a round of golf.  
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity courses combined: maximum credit-4 units.

KIN 41A  Beginning Golf Course Play  
0.5 - 2 units; 1 hour Laboratory  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Develops advanced golf skills through instruction at the range and practice on local golf courses.  
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity courses combined: maximum credit-4 units.

KIN 41B  Intermediate Golf Course Play  
0.5 - 2 units; 1 hour Laboratory  
Recommended Preparation: KIN 41A; Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Develops advanced golf skills through instruction at the range and practice on local golf courses.  
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity courses combined: maximum credit-4 units.

KIN 43A  Beginning Tennis  
0.5 - 2 units; 1 hour Laboratory  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Provide instruction in the development of stroke production, footwork, strategy, rules, and etiquette for singles and doubles play for the beginning student.  
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity courses combined: maximum credit-4 units.

KIN 43B  Intermediate Tennis  
0.5 - 2 units; 1 hour Laboratory  
Recommended Preparation: KIN 43A; Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Provide instruction in the development of stroke production, footwork, strategy, rules, and etiquette for singles and doubles play for the intermediate student.  
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity courses combined: maximum credit-4 units.

KIN 43C  Advanced Tennis  
0.5 - 2 units; 1 hour Laboratory  
Recommended Preparation: KIN 43B; Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Provide instruction in the development of stroke production, footwork, strategy, rules, and etiquette for singles and doubles play for the advanced student.  
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity courses combined: maximum credit-4 units.

KIN 45  Beginning Self-Defense for Women  
1 - 2 units; 0.5 hour Lecture, 1 hour Laboratory  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Provide 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; UC, with limits: Any or all KIN activity courses combined: maximum credit-4 units.

KIN 46B  Intermediate Baseball  
0.5 - 2 units; 1 hour Laboratory  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Provide instruction on the skills and strategies of baseball for the intermediate student.  
Transfer Credit: Transfers to CSU; UC pending review.

KIN 46C  Advanced Baseball  
0.5 - 2 units; 1 hour Laboratory  
Recommended Preparation: KIN 46B; Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Provide instruction on the skills and strategies of baseball for the advanced student.  
Transfer Credit: Transfers to CSU; UC pending review.

KIN 47A  Beginning Basketball  
0.5 - 2 units; 1 hour Laboratory  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Provide instruction in the fundamental skills of basketball for the beginning student.  
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity courses combined: maximum credit-4 units.
KIN 47B  Intermediate Basketball
0.5 - 2 units; 1 hour Laboratory
Recommended Preparation: KIN 47A; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Provides instruction in the skills and strategies of basketball for the intermediate student.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity courses combined: maximum credit-4 units.

KIN 47C  Advanced Basketball
0.5 - 2 units; 1 hour Laboratory
Recommended Preparation: KIN 47B; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Provides instruction in the skills and strategies of basketball for the advanced student.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity courses combined: maximum credit-4 units.

KIN 50A  Beginning Soccer
0.5 - 2 units; 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Provides instruction on the skills and strategy of soccer for the beginning student.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity courses combined: maximum credit-4 units.

KIN 50B  Intermediate Soccer
0.5 - 2 units; 1 hour Laboratory
Recommended Preparation: KIN 50A; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Provides instruction on the skills and strategy of soccer for the intermediate student.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity courses combined: maximum credit-4 units.

KIN 50C  Advanced Soccer
0.5 - 2 units; 1 hour Laboratory
Recommended Preparation: KIN 50B; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Provides instruction of the skills and strategy of soccer for the advanced student.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity courses combined: maximum credit-4 units.

KIN 51A  Beginning Indoor Soccer-Futsal
0.5 - 2 units; 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Provides instruction in skills and strategies of indoor soccer-futsal for the beginning student.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity courses combined: maximum credit-4 units.

KIN 51B  Intermediate Indoor Soccer-Futsal
0.5 - 2 units; 1 hour Laboratory
Recommended Preparation: KIN 51A; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Provides instruction on the skills and strategies of indoor soccer-futsal for the intermediate student.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity courses combined: maximum credit-4 units.

KIN 51C  Advanced Indoor Soccer-Futsal
0.5 - 2 units; 1 hour Laboratory
Recommended Preparation: KIN 51B; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Provides instruction in skills and strategies of indoor soccer-futsal for the advanced student.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity courses combined: maximum credit-4 units.

KIN 53A  Beginning Softball
0.5 - 2 units; 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Provides instruction in the skills and strategies of softball for the beginning student.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity courses combined: maximum credit-4 units.

KIN 53B  Intermediate Softball
0.5 - 2 units; 1 hour Laboratory
Recommended Preparation: KIN 53A; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Provides instruction on the skills and strategies of softball for the intermediate student.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity courses combined: maximum credit-4 units.

KIN 53C  Advanced Softball
0.5 - 2 units; 1 hour Laboratory
Recommended Preparation: KIN 53B; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Provides instruction on the skills and strategies of softball for the advanced student.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity courses combined: maximum credit-4 units.
KIN 54A Beginning Volleyball
0.5 - 2 units; 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
 Provides instruction in the techniques and strategies of volleyball for the beginning student.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity courses combined: maximum credit-4 units.

KIN 54B Intermediate Volleyball
0.5 - 2 units; 1 hour Laboratory
Recommended Preparation: KIN 54A; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
 Provides instruction on the techniques and strategy of volleyball for the intermediate student.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity courses combined: maximum credit-4 units.

KIN 54C Advanced Volleyball
0.5 - 2 units; 1 hour Laboratory
Recommended Preparation: KIN 54B; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
 Provides instruction on the techniques and strategies of volleyball for the advanced student.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity courses combined: maximum credit-4 units.

KIN 55 Sports Conditioning
0.5 - 3 units; 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
 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.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity courses combined: maximum credit-4 units.

KIN 56A Beginning Beach Volleyball
0.5 - 2 units; 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
 Provides instruction on the skills and strategies of beach volleyball for the beginning student.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity courses combined: maximum credit-4 units.

KIN 56B Intermediate Beach Volleyball
0.5 - 2 units; 1 hour Laboratory
Recommended Preparation: KIN 56A; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
 Provides instruction on the skills and strategies of beach volleyball for the intermediate student.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity courses combined: maximum credit-4 units.

KIN 56C Advanced Beach Volleyball
0.5 - 2 units; 1 hour Laboratory
Recommended Preparation: KIN 56B; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
 Provides instruction on the skills and strategies of beach volleyball for the advanced student.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity courses combined: maximum credit-4 units.

KIN 60A Beginning Swimming
0.5 - 2 units; 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
 Emphasizes basic development of aquatic skills including water safety and the freestyle stroke.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity courses combined: maximum credit-4 units.

KIN 60B Intermediate Swimming
0.5 - 2 units; 1 hour Laboratory
Recommended Preparation: KIN 60A; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
 Emphasizes development of aquatic skills for the intermediate swimmer including water safety, basic strokes and techniques, deep water skills, and conditioning activities.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity courses combined: maximum credit-4 units.

KIN 60C Advanced Swimming
0.5 - 2 units; 1 hour Laboratory
Recommended Preparation: KIN 60B; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
 Emphasizes development of aquatic skills and conditioning appropriate to the advanced swimmer. Includes competitive strokes, techniques and conditioning activities.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity courses combined: maximum credit-4 units.

KIN 62A Beginning Water Aerobics
0.5 - 2 units; 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
 Provides cardiovascular conditioning, muscle strengthening, and flexibility through non-swimming water exercise emphasizing low impact on joints for the beginning student. Can be used for rehabilitation and as a cross-training activity for athletes.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity courses combined: maximum credit-4 units.
KIN 62B  Intermediate Water Aerobics
0.5 - 2 units; 1 hour Laboratory
Recommended Preparation: KIN 62A; Eligibility for ENGL 100 and READ 100. Repeatability: May be taken 1 time.
Provides cardiovascular conditioning, muscle strengthening, and flexibility through non-swimming water exercise emphasizing low impact on joints for the intermediate student. Can be used for rehabilitation and as a cross-training activity for athletes.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity courses combined: maximum credit-4 units.

KIN 63A  Beginning Water Polo
0.5 - 2 units; 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100. Repeatability: May be taken 1 time.
Provides instruction on the skills and team strategies of water polo for the beginning student.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity courses combined: maximum credit-4 units.

KIN 63B  Intermediate Water Polo
0.5 - 2 units; 1 hour Laboratory
Recommended Preparation: KIN 63A; Eligibility for ENGL 100 and READ 100. Repeatability: May be taken 1 time.
Provides instruction in the skills and strategies of water polo for the intermediate student.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity courses combined: maximum credit-4 units.

KIN 63C  Advanced Water Polo
0.5 - 2 units; 1 hour Laboratory
Recommended Preparation: KIN 63B; Eligibility for ENGL 100 and READ 100. Repeatability: May be taken 1 time.
Provides instruction in the skills and strategies of water polo for the advanced student.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity courses combined: maximum credit-4 units.

KIN 64  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 1 time.
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; UC.

LEARNING SKILLS PROGRAM
Beth McKinnon, Director, Disabled Student Program and Services (DSP&S)
Program Office, Room LRC1073
Debra Spencer, Faculty Contact, (831) 479-6563
Aptos Counselor: (831) 479-6379 for appointment
http://www.cabrillo.edu/programs

Learning Skills courses are designed to support students with disabilities in regular programs of study offered by the college. All students may register, but curriculum is aimed at helping students with various disabilities succeed in mainstream classes.

Learning Skills Courses

LS 200  Math Study Skills
1.5 units; 1.5 hours Lecture
Corequisite: Concurrent enrollment in a math class is recommended. Repeatability: May be taken 1 time.
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 Pass/No Pass grading.

LS 200L  Reduce Test Anxiety Lab
1 unit; 2 hours Laboratory
Repeatability: May be taken 1 time.
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 254  Diagnostic Assessment
0.5 unit; 1 hour Laboratory
Repeatability: May be taken 1 time.
Provides 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 255  Tutorial Instruction
0.5 unit; 1 hour Laboratory
Repeatability: May be taken 1 time.
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
Prerequisite: none
Corequisite: none.
Recommended Preparation: none.
Repeatability: May be taken 1 time.
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 organiza-
tion, test-taking, problem solving, stress reduction, goal setting and
memory strategies.

LS 281  Strategies for Students with
Learning Disabilities & Attention
Deficit Disorder
3 units; 3 hours Lecture
Repeatability: May be taken 1 time.
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 impor-
tance of students understanding their individual strengths and weak-
nesses. Also emphasizes successful compensatory strategies, accom-
modations, communication with others about learning disabilities and
attention deficit disorder, stress, organization, and time management
skills.

LS 502  Supervised Tutoring for DSPS
Students
0 units; 5 hours Laboratory
Prerequisite: Must be eligible for services through DSPS and/or the Learning
Skills Program.
Repeatability: May be taken 1 time.
Provides drop-in tutorial assistance and assistive technology in a vari-
ety of areas for students with LD and other DSPS documented disabili-
ties. Students work as needed in support of college-level classes and in
basic skills areas.

LIBERAL ARTS AND SCIENCES

LIBERAL STUDIES: see
EDUCATION

LIBERAL ARTS and SCIENCES

Liberal Arts and Sciences Degrees

The Associate degrees in Liberal Arts and Sciences represent the com-
pletion of a broad area of study with an emphasis in Arts and Humanities,
Social Sciences or Interdisciplinary Studies. Students complete the
appropriate general education program (CSU General Education/Breadth,
IGETC) and requirements for the emphasis. This degree is designed pri-
marily for students who are transferring to the California State University
or the University of California in a variety of majors. Study of a foreign
language is recommended.

Emphasis in Arts and Humanities

The emphasis in Arts and Humanities enriches and expands 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 cul-
tural 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 uni-
versal 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 18 units from the following courses:

American Sign Language 1, 2, 3
Art Photography 15#
Art History 10, 11, 11H, 12, 13, 14, 16#, 17#, 18#, 19#, 20A, 20B, 52#, 53, 77
Chinese 1, 2
Dance 1#(10), 12#
Music 1, 5, 6, 10, 10M, 11A#, 11LA#, 12#, 13A#, 13#, 41B#
French 1, 2, 3, 4, 5A, 5B, 6A, 6B, 10A, 10B, 16, 17, 25, 26, 30B#
German 1, 2, 3, 4, 10
History 2A#, 2B#, 4A, 4AH, 4B, 4BH
Italian 1, 2, 3, 10
Japanese 1, 2
Philosophy 4, 6, 7, 8, 9, 10, 10H 14#, 15#, 16
Spanish 1, 2, 3, 4, 5A, 5B, 6A, 6B, 10A, 10B, 16, 17, 25, 26, 30B#

Emphasis in Social Science

The emphasis in Social Sciences increases students’ knowledge of how
historians and social and behavioral scientists discover, describe, and
explain the behaviors and interactions among individuals, groups, insti-
tutions, 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 peri-
ods and social settings
d) Use and critique models and methods for explaining behavior
e) Articulate and analyze alternative approaches to the solution of con-
temporary social issues.

Select 18 Units from the following courses:

Anthropology 2#, 2H, 3, 6#, 7#, 8#
Bilingual/Bicultural Studies 32#
Communication Studies 7, 12#
Emphasis in Interdisciplinary Studies

The emphasis in Interdisciplinary Studies allows students to examine and integrate concepts from multiple perspectives, enriches and expands students’ knowledge of the human condition and human cultures, and increases students’ knowledge of how historians and social and behavioral scientists discover, describe, and explain the behaviors and interactions among individual, groups, institutions, events, and ideas. Students will engage in critical analysis, develop aesthetic judgments, and learn to appreciate the arts and humanities. Such knowledge will prepare students for interdisciplinary transfer programs, and will better equip students to understand themselves and the roles they play in addressing the issues facing humanity.

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
f) Employ the methods and data that historians and social/behavioral scientists commonly use to investigate the human condition
g) Identify important information resources in history and the social/behavioral sciences
h) Examine institutions and processes across a range of historical periods and social settings
i) Use and critique models and methods for explaining behavior
j) Articulate and analyze alternative approaches to the solution of contemporary social issues.
k) 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.
l) Identify premises, conclusions, claims, assumptions, biases in one’s own argument as well as in the arguments of others.
Associate in Science Degree in Liberal Arts and Sciences
General Education (non-transfer pattern) 21 Units
Emphasis Area (chosen from above list) 18 units
Electives (any course numbered 1-199) 21 units

Total Units required for A.S. Non Transfer 60 units

LIBRARY SCIENCE/INFORMATION SCIENCE
Library Learning Resources Center
Georg Romero, Director of Library/Learning Resources
Library, Building 1000
Circulation, (831) 479-6473
http://go.cabrillo.edu/library

Library Science Courses

LIBR 10 Information Research
1 unit; 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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. Synthesizes and applies evaluation techniques to select quality information sources from a variety of resources for the construction of works cited lists. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC.

LIBR 10H Information Research Honors
1 unit; 3 hours Laboratory
Prerequisite: Honors Standing.
Recommended Preparation: Eligibility for ENGL 1A/1AH/1AMC/1AMCH; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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. Synthesizes and applies evaluation techniques to select quality information sources from a variety of resources for the construction of works cited lists. Highlights student research and the construction of an annotated work cited list. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC, pending review.

LIBR 18 Advanced Internet Searching
1 unit; 0.5 hour Lecture, 1.5 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

LIBR 100 Introduction to Information Skills
0.5 unit; 1.5 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Provides instruction on how to find, retrieve, and use information, both print and electronic, using technology related to information literacy.

LIBR 203 Tutoring Methods
1 unit; 1 hour Lecture
Repeatability: May be taken 1 time.
Teaches methods for tutoring with special emphasis on managing groups, bridging cultural gaps, and tutoring students with disabilities.
Mathematics A.S.-T Transfer Degree

Program Description:

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.

A mathematics major may transfer to a four-year institution to complete a Bachelor’s Degree in Mathematics, Physics, Computer Science or Engineering. Career opportunities include teacher, researcher, and statistician. Graduates work in private industry, government and many areas of technological research and computer-related fields.

Cabrillo offers options for degrees in Mathematics. The first option listed below is the Associate in Science in Mathematics for Transfer (A.S.-T), which is intended for students who plan to complete a bachelor’s degree in Mathematics or related STEM field at a CSU campus. Students completing these degrees are guaranteed admission to the CSU system, but not to a particular campus or major. This degree may not be the best option for students intending to transfer to a particular CSU campus or to a university or college that is not part of the CSU system. See a Counselor. See Associate Degree for Transfer information in the Cabrillo College Catalog.

The following is required for all A.A.-T or A.S.-T degrees:

Completion of 60 CSU-transferable semester units.

- Minimum grade-point average (GPA) of at least 2.0 in all CSU-transferable course work. While a minimum of 2.0 is required for admission, some majors may require a higher GPA.
- Completion of a minimum of 18 semester units in the major with a letter grade of "C" or better. A "P" grade is not acceptable for courses in the major.
- Certified completion of the California State University General Education-Breadth pattern (CSU GE Breadth) or the Intersegmental General Education Transfer Curriculum (IGETC) pattern.

The second option fulfills requirements for an A.S. Degree in Mathematics at Cabrillo College.

Mathematics A.S. Degree

Program Description:

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.

A.S. General Education 21 Units

Core Courses 18 units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 5A</td>
<td>Analytic Geometry and Calculus I</td>
<td>5</td>
</tr>
<tr>
<td>MATH 5B</td>
<td>Analytic Geometry and Calculus II</td>
<td>5</td>
</tr>
<tr>
<td>MATH 5C</td>
<td>Analytic Geometry and Calculus III</td>
<td>5</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>MATH 12</td>
<td>Elementary Statistics</td>
<td>5</td>
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<tr>
<td>MATH 12H</td>
<td>Honors Elementary Statistics</td>
<td>5</td>
</tr>
<tr>
<td>MATH 23</td>
<td>Discrete Mathematics</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 4A</td>
<td>Physics for Scientists and Engineers I</td>
<td>5</td>
</tr>
<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>CS 21</td>
<td>Introduction to Data Structures and Algorithms</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Units 60

Note: All major courses (except Computer Science courses) are also general education courses.

*spring only; **usually spring only, even years
Approved Electives (12 units)

MATH 6  *Introduction to Linear Algebra  . . . . . . . . . . . . . . . . 3
MATH 12  Elementary Statistics  . . . . . . . . . . . . . . . . . . . . . . . 5
or
MATH 12H  Honors Elementary Statistics  . . . . . . . . . . . . . . . . . 5
MATH 23  ***Discrete Mathematics  . . . . . . . . . . . . . . . . . . . . 4
PHYS 4A  Physics for Scientists and Engineers I  . . . . . . . . . 5
PHYS 4B  **Physics for Scientists and Engineers II  . . . . . . . . 5
PHYS 4C  *Physics for Scientists and Engineers III  . . . . . . . . 5
CHEM 1A  General Chemistry I  . . . . . . . . . . . . . . . . . . . . . . . . 5
CHEM 1B  General Chemistry II  . . . . . . . . . . . . . . . . . . . . . . . 5
CS 19  C++ Programming  . . . . . . . . . . . . . . . . . . . . . . . . . 4

Total Units  60

*spring only; **fall only, ***spring only even years

Note: No other math class counts toward an associate degree in mathematics.

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 course work 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 2  Preparatory Algebra
4 units; 4 hours Lecture
Prerequisite: MATH 152 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatable: May be taken 1 time.

MATH 3  Precalculus Trigonometry
3 units; 3 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.
Repeatable: May be taken 1 time.

MATH 4  Precalculus 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.
Repeatable: May be taken 1 time.

MATH 5A  Analytic Geometry and Calculus I
5 units; 5 hours Lecture
Prerequisite: MATH 4 or MATH 2 and MATH 3 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatable: May be taken 1 time.

MATH 5B  Analytic Geometry and Calculus II
5 units; 5 hours Lecture
Prerequisite: MATH 5A or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatable: May be taken 1 time.

Transfer Credit: Transfers to CSU; UC, with limits: Math 2 and 4 combined - maximum credit: 1 course.

Transfer Credit: Transfers to CSU; UC, with limits: MATH 5A & 18 combined - maximum credit: 1 course. C-ID MATH 210

Transfer Credit: Transfers to CSU; UC, with limits: MATH 5A & 18 combined - maximum credit: 1 course. C-ID MATH 210

Transfer Credit: Transfers to CSU; UC. C-ID MATH 220
MATH 5C Analytic Geometry and Calculus III
5 units; 5 hours Lecture
Prerequisite: MATH 5B or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
  Presents vectors and vector functions, multivariable calculus of algebraic and transcendental functions, line and surface integrals, vector field theory. Designed for majors in mathematics, engineering, and physical sciences. May not be taken Pass/No Pass.
Transfer Credit: Transfers to CSU; UC. C-ID MATH 230

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.
Repeatability: May be taken 1 time.
  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, and the Gram-Schmidt process. Students enrolled in the Honors Transfer Program may count this course towards the “Honors Scholar” designation. Offered spring only. May not be taken Pass/No Pass.
Transfer Credit: Transfers to CSU; UC. C-ID MATH 250

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.
Repeatability: May be taken 1 time.
  Presents an introductory course in Differential Equations: first order, second order, homogeneous, nonhomogeneous, variation of parameters, applications, simple linear systems with constant coefficients, Laplace transforms, and power series solutions. Students enrolled in the Honors Transfer Program may count this course towards the “Honors Scholar” designation. May not be taken Pass/No Pass.
Transfer Credit: Transfers to CSU; UC. C-ID MATH 240

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.
Repeatability: May be taken 1 time.
  Presents concepts and applications of various topics in mathematics that use intermediate algebra skills. 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; UC.

MATH 12 Elementary Statistics
5 units; 5 hours Lecture
Prerequisite: MATH 152 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
  Presents histograms, measures of central tendency and dispersion, probability, binomial and normal distributions, estimation and hypothesis testing, regression and correlation. Recommended for social science, environmental studies, and some liberal arts majors. Requires extensive use of a graphing calculator or desktop computer to complete required assignments. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC, with limits: MATH 12/12H combined with BUS 9-maximum credit-1 course.

MATH 12H Honors Elementary Statistics
5 units; 5 hours Lecture
Prerequisite: Honors Standing. MATH 152 or equivalent skills.
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH; Eligibility for READ 100.
Repeatability: May be taken 1 time.
  Presents histograms, measures of central tendency and dispersion, probability, binomial and normal distributions, estimation and hypothesis testing, regression and correlation. Recommended for social science, environmental studies, and some liberal arts majors. Requires extensive use of a graphing calculator or desktop computer to complete required assignments. May not be taken Pass/No Pass.
Transfer Credit: Transfers to CSU; UC, with limits: MATH 12/12H combined with BUS 9-maximum credit-1 course.

MATH 13 Finite Mathematics
3 units; 3 hours Lecture
Prerequisite: MATH 152 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
  Presents topics in set theory, linear programming, matrices, mathematics of finance, probability, with applications to business and the social sciences.
Transfer Credit: Transfers to CSU; UC.

MATH 15 Number Systems
3 units; 3 hours Lecture, 1 hour Laboratory
Prerequisite: MATH 152 and MATH 153 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
  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.
Transfer Credit: Transfers to CSU; UC. Does not meet the UC math admissions requirement.
MATH 18 Business Calculus
3 units; 3 hours Lecture
Prerequisite: MATH 152 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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; UC, with limits: MATH 5A & 18 combined-maximum credit-1 course.

MATH 23 Discrete Mathematics
4 units; 3 hours Lecture, 3 hours Laboratory
Prerequisite: CS 11 or CS 12GP or CS 12J or equivalent skills; MATH 5A or equivalent skills.
Recommended Preparation: CS 19 or CS 20J or equivalent skills; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Presents discrete mathematical systems including methods of proof that shape the foundations of computer science. Includes propositional logic, set and number theory, Boolean Algebra, deductive and inductive proof, functions and relations, combinatorics, discrete probability, graph theory and network models, and efficiency of algorithms. CS majors should enroll in CS 23 (identical to MATH 23). Usually offered spring only even years. May be offered in a Distance-Learning Format. Transfer Credit: Transfers to CSU; UC.

MATH 142 Intermediate Algebra for Non-Science Majors
5 units; 5 hours Lecture
Prerequisite: MATH 154 or MATH 154B or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Presents intermediate algebra topics with an emphasis on data analysis and modeling; satisfies prerequisite for MATH 10, MATH 12, MATH 12H, MATH 13, or MATH 15; NOT a prerequisite for MATH 2, MATH 3, MATH 4, MATH 18, or MATH 23. Topics include mathematical modeling using real-world data, systems of equations, and graphs as well as linear, exponential, logarithmic and polynomial functions. May be offered in a Distance-Learning Format. May not be taken Pass/No Pass credit.

MATH 152 Intermediate Algebra
5 units; 5 hours Lecture
Prerequisite: MATH 154 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Continues 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 Pass/No Pass. May be offered in a Distance-Learning Format.
MATH 154A  Elementary Algebra-
First Half
4 units; 4 hours Lecture, 4 hours Laboratory
Prerequisite: MATH 254B or MATH 254CM or MATH 254SI or equivalent
skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Prepresents the first half of Elementary algebra and is designed for a wide
variety of students, including those who have been unsuccessful in
MATH 154, are math anxious, or desire a slower paced, year-long version
of MATH 154; and along with MATH 154B is equivalent to MATH 154.
Provides a systemic development of numbers, solving first degree equa-
tions and inequalities, graphing two variable linear equations, and two
variable systems of equations. May not be taken Pass/No Pass.

MATH 154B  Elementary Algebra-
Second Half
4 units; 4 hours Lecture, 4 hours Laboratory
Prerequisite: MATH 154A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Prepresents the second half of Elementary Algebra and is intended only
for students who have successfully completed MATH 154A. Provides a
systematic development of polynomials, polynomial fractions, applica-
tions to the solution of quadratic equations, and an introduction to expo-
nents and radicals. May not be taken Pass/No Pass.

MATH 158BF  Algebra Review-
Basic Factoring
0.5 unit; 1.5 hours Laboratory
Corequisite: MATH 154 or higher level math course.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Covers prerequisite skills for factoring followed by extensive drill on
the five factoring techniques typically included in an elementary algebra
course. May be taken Pass/No Pass only.

MATH 158PF  Algebra Review-Polynomial
Fractions
0.5 unit; 1.5 hours Laboratory
Corequisite: MATH 154 or higher level math course.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Covers addition and subtraction of polynomial fractions at the level of
elementary algebra in an independent instruction module. 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 Pass/No Pass only.

MATH 158SI  Using the Metric System
0.5 unit; 1.5 hours Laboratory
Corequisite: MATH 154 or higher level math course.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Introduces the units and uses of the metric system and its applications
in an independent instruction module. May be taken for Pass/No Pass
only.

MATH 158T  Preparation for Tutoring
Mathematics
1 unit; 3 hours Laboratory
Recommended Preparation: MATH 4 with a "B" or better or MATH 2 with a "B"
or better and MATH 3 with a "B" or better; Eligibility for ENGL 100 and READ
100.
Repeatability: May be taken 1 time.
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, 12H, 13, 15, 5A, 5B, or 5C.
May be taken for Pass/No Pass.

MATH 190AZ  Survey Topics in Mathematical
Literacy
1 - 5 units; 1 hour Lecture or 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Prepresents math topics with an emphasis on numeracy. The specific
course content will be described in the Schedule of Classes.
MATH 195AZ 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 1 time.
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 of the adoption and rejection of any theory in science.

MATH 254A Essential Mathematics-First Half
4 units; 4 hours Lecture
Repeatability: May be taken 1 time.
Presents the first half of Essential Mathematics and along with MATH 254B is equivalent to MATH 254CM or 254SI. Covers arithmetic procedures involving whole numbers, fractions, and decimals integrated with proportions.

MATH 254B Essential Mathematics-Second Half
4 units; 4 hours Lecture
Prerequisite: MATH 254A.
Repeatability: May be taken 1 time.
Presents the second half of Essential Mathematics and is intended only for students who have successfully completed MATH 254A. Covers integers, percents, linear equations, measurements, geometry, and statistics.

MATH 254CM Essential Mathematics-Computer Mediated
2 units; 6 hours Laboratory
Repeatability: May be taken 1 time.
Presents topics in an accelerated format using computer software, assisted by the instructor, and covers whole numbers, fractions, decimals, percents, signed numbers, equations, statistics, proportions, and geometry. May be offered in a Distance-Learning Format.

MATH 254SI Essential Mathematics with Supplemental Instruction
6 units; 6 hours Lecture
Recommended Preparation: Eligibility for READ 205 by Assessment.
Repeatability: May be taken 1 time.
Presents topics in an accelerated format and covers whole numbers, fractions, decimals, percents, signed numbers, equations, statistics, proportions, and geometry with a supplemental instruction component.

MATH 502 Supervised Tutoring
0 units; 5 hours Laboratory
Repeatability: May be taken 1 time.
Provides supervised tutoring assistance in basic skills and transfer level mathematics courses, including mathematics applications found in science and other non-math courses.

MEDICAL ASSISTING
Health, Athletics, Wellness, and Kinesiology Division
Ian Haslam, Division Dean
Division Office, Room 1102
Pamela Sanborn, Program Chair (831) 479-6438
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 786-4734
Call (831) 479-6248 for more information
http://www.cabrillo.edu/programs

Medical Assisting A.S. Degree
Program Description:
The Cabrillo College Medical Assisting Program is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the Medical Assisting Education Review Board (MAERB). Commission on Accreditation of Allied Health Education Programs (CAAHEP), 1361 Park Street, Clearwater, FL 33756, (727) 210-2350. The Medical Assistant is an integral part of the medical team; 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.

Security Screening
To comply with state and local regulations for health care providers, students participating in externships through the Cabrillo College Medical Assisting program are required to meet vaccination and drug testing requirements and provide documentation to the Student Health Services Center before being placed at an externship site. Students are also required to complete criminal background checks and may be required to undergo fingerprinting.

Medical Assisting Certificate of Achievement and A.S. Degree:
Students completing the requirements for the AS degree or Certificate of Achievement: Medical Assistant will:
1. Accurately & safely perform medical assisting tasks and procedures.
2. Perform receptionist and administrative medical facility duties.
3. Interact professionally and ethically with patients and medical facility personnel, working within the medical assistant scope of practice.
### A.S. General Education

**21 Units**

#### Core Courses (32-32.5 units)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MA 70</td>
<td>Medical Terminology</td>
<td>3</td>
</tr>
<tr>
<td>MA 160</td>
<td>* Basic ICD-10-CM and CPT Coding</td>
<td>1</td>
</tr>
<tr>
<td>MA 165</td>
<td>**** Injection Short Course</td>
<td>1</td>
</tr>
<tr>
<td>MA 170B</td>
<td>Medical Terminology-Structure and Function of the Body</td>
<td>3</td>
</tr>
<tr>
<td>MA 172</td>
<td>Medical Office Procedures</td>
<td>4</td>
</tr>
<tr>
<td>MA 173A</td>
<td>Medical Law and Ethics</td>
<td>1.5</td>
</tr>
<tr>
<td>MA 176</td>
<td>** Introduction to Medical Assisting Procedures</td>
<td>3</td>
</tr>
<tr>
<td>MA 176L</td>
<td>** Medical Assisting Lab</td>
<td>1</td>
</tr>
<tr>
<td>MA 181</td>
<td>Medical Insurance</td>
<td>3</td>
</tr>
<tr>
<td>MA 183C</td>
<td>**** EKG Complete Skills</td>
<td>2</td>
</tr>
<tr>
<td>MA 184</td>
<td>Health Care Communication</td>
<td>2</td>
</tr>
<tr>
<td>MA 185B</td>
<td>**** Phlebotomy</td>
<td>1</td>
</tr>
<tr>
<td>MA 199C</td>
<td>*** Career Work Experience Education</td>
<td>3</td>
</tr>
<tr>
<td>CABT 31</td>
<td>Microsoft Word</td>
<td>3</td>
</tr>
<tr>
<td>CABT 110A</td>
<td>**** Computer Keyboarding-Alphabet Keys</td>
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| CABT 110B   | **** Computer Keyboarding-Numbers/Symbols | 0.5 | and

#### Approved Electives (6.5-7 Units)

<table>
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<tr>
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<th>Units</th>
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<tbody>
<tr>
<td>CABT 111</td>
<td>Using Speech Recognition Software</td>
<td>1</td>
</tr>
<tr>
<td>CABT 156</td>
<td>Writing for the Workplace</td>
<td>3</td>
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<tr>
<td>CABT 102</td>
<td>10-Key Calculator</td>
<td>1</td>
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<tr>
<td>COMM 6</td>
<td>Group Discussion</td>
<td>3</td>
</tr>
<tr>
<td>COMM 100</td>
<td>Medical Assistant Essentials</td>
<td>4</td>
</tr>
<tr>
<td>MA 150</td>
<td>Pharmacology for Medical Assistants</td>
<td>2</td>
</tr>
<tr>
<td>MA 180</td>
<td>ICD-10 Diagnostic and Procedural Coding</td>
<td>3</td>
</tr>
<tr>
<td>MA 186</td>
<td>CPT (Current Procedural Terminology) Coding</td>
<td>2</td>
</tr>
<tr>
<td>MA 188HP</td>
<td>Human Pathophysiology</td>
<td>3</td>
</tr>
<tr>
<td>MA 189</td>
<td>Electronic Health Records</td>
<td>1.5</td>
</tr>
<tr>
<td>MATH 190ALH</td>
<td>Math for Allied Health Careers</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 35ABC</td>
<td>Death and Dying</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 1</td>
<td>Elementary Spanish I</td>
<td>5</td>
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<tr>
<td>SPAN 2</td>
<td>Elementary Spanish II</td>
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<td>SPAN 3</td>
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<td>SPAN 4</td>
<td>Intermediate Spanish II</td>
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#### Total Units

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<tr>
<td>60</td>
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</tbody>
</table>

*Students who have completed MA 180 and MA 186 are excused from this course and may substitute one unit from the Approved Electives list. **This course must be taken within one year of externship.**** Students who enter the program with an ability to type 40 WPM should substitute CABT 110C to increase typing speed.*

### Medical Assisting Certificate of Achievement

**Units**

#### Core Courses (32-32.5 Units)

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<tr>
<td>MA 176L</td>
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</tr>
<tr>
<td>CABT 110A</td>
<td>**** Computer Keyboarding-Alphabet Keys</td>
<td>0.5</td>
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</table>
| CABT 110B   | **** Computer Keyboarding-Numbers/Symbols | 0.5 | and

#### Other Required Courses (3 units)

<table>
<thead>
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<th>Units</th>
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<tbody>
<tr>
<td>CABT 157</td>
<td>Business and Technical Writing</td>
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</tr>
<tr>
<td>ENGL 100</td>
<td>Elements of Writing</td>
<td>3</td>
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<tr>
<td>ENGL 1A/1AH/1AMC/1AMCH</td>
<td></td>
<td>3</td>
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#### Total Units

<table>
<thead>
<tr>
<th>Units</th>
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<tbody>
<tr>
<td>35.5</td>
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</tbody>
</table>

*Students who have completed MA 180 and MA 186 are excused from this course and may substitute one unit from the Approved Electives list. **This course must be taken within one year of externship.**** Students who enter the program with an ability to type 40 WPM should substitute CABT 110C to increase typing speed.*

### Electronic Health Records Skills Certificate

#### Program Learning Outcomes:

Students completing the requirements for the skills certificate Electronic Health Record will:

1. Correctly navigate an electronic health record system to record patient encounters, maintain health records and access patient information.

#### Core Courses

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>MA 70</td>
<td>Medical Terminology</td>
<td>3</td>
</tr>
<tr>
<td>CABT 38</td>
<td>Introduction to Microsoft Office</td>
<td>3-4</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>
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#### Total Units

<table>
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<tbody>
<tr>
<td>13.5-15</td>
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</table>

*Students who begin this skills certificate with an ability to type 40 WPM should substitute CABT 110C to increase typing speed.*
Phlebotomy Technician Skills Certificate

Program Learning Outcomes:
Students completing the requirements for the skills certificate Phlebotomy Technician will:

1. Accurately and safely draw blood using capillary and venipuncture procedures.
2. Label, handle, and process blood and non-blood specimens to avoid pre-analytical sources of error and deliver to appropriate department.

Required
MA 130A * Phlebotomy ................................. 1.5
MA 130AL * Phlebotomy Lab. .......................... 1
MA 130B * Phlebotomy-Advanced .................... 1.5
MA 199C * Career Work Experience Education .......... 2
MA 70 Medical Terminology ............................. 3

Total Units 9

*This course is required for California State Licensing, and must be taken within one year of MA 199C (externship.)

Medical Assisting Courses

MA 70 Medical Terminology
3 units; 3 hours Lecture
Recommended Preparation: ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Teaches allied health students fundamentals of medical word building with emphasis on prefixes, word roots, suffixes, combining forms, abbreviations, and lay terms.
Transfer Credit: Transfers to CSU.

MA 100 Medical Assistant Essentials
4 units; 3 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Teaches essential principles, skills, and professionalism for success in the medical assistant profession.

MA 110 Administrative Medical Assisting Procedures
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Teaches medical assistant students administrative skills utilized in outpatient medical settings.

MA 111 Introduction to Insurance and Medical Office Financial Management
3 units; 3 hours Lecture
Prerequisite: MA 160 or MA 186 and MA 180.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Teaches medical assistant students basic financial management and insurance billing procedures utilized in outpatient medical settings.

MA 120 Clinical Medical Assisting Procedures
6 units; 4 hours Lecture, 6 hours Laboratory
Prerequisite: MA 70.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Teaches medical assistant students theory along with clinical skills utilized in outpatient medical settings.

MA 130A Phlebotomy
1.5 units; 1.5 hours Lecture
Prerequisite: MA 70.
Corequisite: MA 130AL or current California phlebotomy certification.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

California Certified basic phlebotomy course teaching 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 with less than 1,040 hours of experience. 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 a national phlebotomy certification examination to become certified. May be offered in a Distance-Learning Format.
MA 130AL Phlebotomy Lab
1 unit; 4 hours Laboratory
Corequisite: MA 130A or current California phlebotomy certification.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Provides the skills portion of the MA 130 series for beginning phlebotomy students working towards state certification. 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 MUST bring a copy of verification of Hepatitis B vaccinations 1 and 2 to the first class. 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 MA 130A, MA 130B and MA 130AL, and a 120-hour externship. Phlebotomists with less than 1,040 hours must take MA 130A and B to become certified. Phlebotomists with more than 1,040 hours must take MA 130B. All students must pass a national phlebotomy examination to become certified.

MA 130B Phlebotomy-Advanced
1.5 units; 1.5 hours Lecture
Prerequisite: MA 130A or current California phlebotomy certification. MA 130AL.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Teaches phlebotomy equipment, techniques, patient care, safety, tests, advanced infection control and bio-hazards, 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. All students must pass a national phlebotomy examination to become certified. May be offered in a Distance-Learning Format.

MA 150 Pharmacology for Medical Assistants
2 units; 2 hours Lecture
Prerequisite: MA 70.
Recommended Preparation: Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.

Teaches medical assistant and allied health students drug therapy including the mechanisms of action, therapeutic effects, clinical indications, reactions, and interventions.

MA 160 Basic ICD-10-CM and CPT Coding
1 unit; 1 hour Lecture
Prerequisite: MA 70.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Teaches basic principles and conventions of the International Classification of Diseases, 10th Revision, Clinical Modification (ICD-10-CM) and Current Procedural Terminology (CPT) coding classification systems to students not majoring in billing or coding.

MA 165 Injection Short Course
1 unit; 0.5 hour Lecture, 1.5 hours Laboratory
Prerequisite: MA 70.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Teaches allied health students and current health care employees the correct procedures for administering intramuscular, intradermal and subcutaneous injections.

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 1 time.

Teaches medical assistant and allied health students terms of anatomy, physiology, diseases, diagnostic, operative, and x-ray procedures.
MA 180  ICD-10 Diagnostic and Procedural Coding  
3 units; 3 hours Lecture  
Prerequisite: MA 70 and MA 170B.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Teaches principles, functions, format, conventions, and guidelines of International Classification of Diseases 10th Revision Clinical Modification and Procedural Coding System (ICD-10-CM/PCS) for coding assignments as applicable to all levels of health care services for statistics and reimbursement.

MA 181  Medical Insurance  
3 units; 3 hours Lecture  
Prerequisite: MA 160 or MA 180 and MA 186.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Teaches theory and application of medical insurance billing and procedures as used in medical facilities.

MA 183C  EKG Complete Skills  
2 units; 1 hour Lecture, 3 hours Laboratory  
Prerequisite: MA 70.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Teaches electrocardiography skills, holter and stress monitoring, and recognition of cardiac irregularities.

MA 184  Health Care Communication  
2 units; 2 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Teaches medical assistant and other allied health students skills of professional conduct and interaction for healthcare settings and job-related social settings.

MA 185B  Phlebotomy  
1 unit; 0.5 hour Lecture, 1.5 hours Laboratory  
Prerequisite: MA 70.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Teaches health students and current healthcare employees phlebotomy. Course does not satisfy California State Phlebotomy licensing requirements.

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 1 time.  
Teaches procedural coding for office and outpatient procedures.

MA 188HP  Human Pathophysiology  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Teaches allied health students general principles of disease processes with emphasis on etiologies and physiological changes, diagnostic procedures, preventive measures, and current treatment.

MA 189  Electronic Health Records  
1.5 units; 1 hour Lecture, 1.5 hours Laboratory  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Teaches the use of electronic health records documenting patient encounter from scheduling to recording medical information.

MA 190AZ  Special Topics in Medical Assistant  
0.5 - 5 units; 0.5 hour Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Investigates special selected areas of interest in Medical Assistant not covered by regular catalog offerings. The special areas will be announced, described, and given their own titles and letter designations in the Schedule of Classes.

METEOROLOGY  
Human Arts and Social Sciences Division  
Isabel O'Connor, Division Dean  
Division Office, Room 420  
Rory O'Brien, Program Chair, (831) 479-6443  
Aptos Counselor: (831) 479-6274 for appointment  
Watsonville Counselor: (831) 786-4734  
Call (831) 479-6297 for more information  
http://www.cabrillo.edu/programs
Meteorology Courses

METEO 1  Elementary Meteorology
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.
Explores the composition, structure and motion of the atmosphere including: weather systems, clouds and precipitation, radiation, upper atmospheric phenomena, microclimates, meteorological instruments, and observations. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC.

METEO 1L  Meteorology Laboratory
1 unit; 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Hybrid Requisite: Completion of or concurrent enrollment in METEO 1.
Repeatability: May be taken 1 time.
Emphasizes the nature and causes of weather and climate using exercises, weather data and hands-on instrument use.
Transfer Credit: Transfers to CSU; UC.

MUSIC
Visual, Applied, and Performing Arts Division
John Graulcy, Division Dean
Division Office, Room VAPA1007
Michael Strunk, Program Chair, (831) 477-3256
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 786-4734
Call (831) 479-6464 for more information
http://www.cabrillo.edu/programs

Music A.A. Degree
Program Description:
Transfer Credit in Music All Music Theory and Musicianship courses transfer to both the University of California and the California State University, where the equivalent of two years of Music Theory and Musicianship are required at the lower division level. Music majors are encouraged to complete as many of these courses as possible prior to transfer in order to prepare for upper division work. Upon transfer to many four-year universities or music schools, students must take placement exams in Theory, Musicianship and Piano proficiency. Music majors are also encouraged to take applied music and performance courses each semester while at Cabrillo. See a counselor for transfer information for a B.A. Degree.

Model Program for Music
An Associate Degree requires 60 units appropriate to your educational goal, to include general education and at least 18 units in a major. Courses should be selected to meet the lower-division major preparation requirements at your intended transfer university-these specific requirements can be found at www.assist.org for 4-year public institutions in California. Please see a counselor for advisement to ensure you are taking the best possible courses given your goal. The department presents the following suggested model program for this major. The courses listed below may or may not be appropriate depending on your specific goal. Please see a counselor for advisement for transfer to any 4-year institution.

A.A. General Education 30 Units
Core Courses
MUS 6  Fundamentals of Music 3
or
MUS 5  Beginning Jazz/Pop Music Theory 3
MUS 51A  Class Piano I 1
General Option-(6 units) Units
MUS 1  Comprehensive Music Theory I 3
or
MUS 2  Comprehensive Music Theory II 3
or
MUS 3  Comprehensive Music Theory III 3
or
MUS 4  Comprehensive Music Theory IV 3
MUS 1M  Musicianship I 1
or
MUS 2M  Musicianship II 1
or
MUS 3M  Musicianship III 1
or
MUS 4M  Musicianship IV 1
OR
Jazz Option-(6 units) Units
MUS 9A  Advanced Jazz Theory/Beginning Jazz Arranging 3
MUS 24A  Beginning Jazz Improvisation 1
MUS 24B  Intermediate Jazz Improvisation 1
MUS 24C  Advanced Jazz Improvisation 1
OR
Music Technology Option-(6 units) Units
MUS 7  Music Synthesis, Sampling, and Electronic Music 3
MUS 31A  Fundamental Recording Techniques I 1.5
MUS 57A  Music and Computers I: Digital Audio Workstation 1.5
Performance Electives (4 Units) Units
Vocal/Choral Option
MUS 34  Cabrillo Cantata Chorus 1
MUS 35  College Choir 1
MUS 36  Chorale 1
MUS 39  Westside Community Folk Song/Gospel Choir 1
MUS 61  Cabrillo Symphonic Chorus 1
MUS 62  Cabrillo Touring Chorus 1
MUS 63  Chamber Choir 1
MUS 64  Cantiamo Cabrillo 1
MUS 65  Cabrillo Women's Choir 1
MUS 66  Opera Workshop 1
MUS 67  Opera Theater Production 1
MUS 52LA Latin American Drumming 1

Percussion

MUS 18A Beginning Wind (Band) Instruments 1

Winds/Brass

MUS 19 Beginning Strings 1

MUS 33A Classical Guitar I. 1

MUS 51A Class Piano I. 1

MUS 51B Class Piano II 1

MUS 51C Classical Guitar III 1

MUS 51D Classical Guitar IV 1

MUS 51B Class Piano II 1

MUS 52LA Latin American Drumming 1

MUS 85P Introduction to Piano Accompanying 1

MUS 51J Jazz Piano Techniques 1

MUS 51B Class Piano II 1

MUS 52A Intermediate Wind (Band) Instruments 1

MUS 18B Intermediate Jazz Band 1

MUS 20 Intermediate Orchestra Instruments 1

MUS 40 Chamber Music Ensemble 1

MUS 47 Guitar Ensemble 1

MUS 48 Concert Band 1

MUS 49 College Symphonic Winds 1

MUS 52 Percussion Ensemble 1

MUS 53 Baroque Chamber Ensemble 1

MUS 54 Repertory Chamber Ensemble 1

MUS 55 Cabrillo Orchestra 1

MUS 56 Latin American Music Ensemble 1

MUS 68 Piano Ensemble 1

Applied Electives (3 Units) Units

Guitar

MUS 26A Beginning Jazz/Rock Guitar Techniques 1

MUS 26B Advanced Jazz/Rock Guitar Techniques 1

MUS 27 Beginning Popular Guitar Techniques 1

MUS 33A Classical Guitar I. 1

MUS 33B Classical Guitar II 1

Voice

MUS 15A Beginning Jazz and Popular Solo Voice 1

MUS 17A Beginning Voice 1

MUS 17B Intermediate Voice 1

MUS 17C Advanced Voice 1

MUS 85A Renaissance and A Cappella Performance Practice 1

MUS 85S Sight Singing and Ear Training 1

Piano

MUS 22A Intermediate Piano 1

MUS 23 Advanced Piano 1

MUS 51B Class Piano II 1

MUS 51J Jazz Piano Techniques 1

MUS 85P Introduction to Piano Accompanying 1

Strings

MUS 19 Beginning Strings 1

Winds/Brass

MUS 18A Beginning Wind (Band) Instruments 1

Percussion

MUS 52LA Latin American Drumming 1

Applied Music

MUS 16 Applied Music: Winds, Strings, Brass, Piano, Voice, and Percussion 1

Music Education

MUS 18A Beginning Wind (Band) Instruments 1

MUS 19 Beginning Strings 1

MUS 33A Classical Guitar I 1

MUS 51A Class Piano I 1

Songwriting

MUS 28 Popular Songwriting 2

Technology Electives (3 Units) Units

MUS 7 Music Synthesis, Sampling, and Electronic Music 3

MUS 31B Fundamental Recording Techniques II 1.5

MUS 31LS Recording Techniques III: Live Sound Production 1.5

MUS 31SP Recording Techniques IV: Studio Production 1.5

MUS 57B Music and Computers II: Electronic Music Composition 1.5

MUS 57NS Music and Computers III: Music Notation and Scoring 1.5

OR

Appreciation and History Electives (3 Units) Units

MUS 10 Music Appreciation 3

MUS 10M Historical Survey of Music 3

MUS 11A Jazz Appreciation 3

MUS 11LA Latin American Music Appreciation 3

MUS 12 World Music 3

MUS 13A Survey of American Popular Music 3

MUS 77 Correlation of the Arts 3

Electives

(in Music or other areas numbered 1-99) 10

Total Units 60

Classical Guitar Skills Certificate

Program Description:
These certificate programs prepare students for careers and/or advanced study in the music profession. The programs are designed to produce mid-level to advanced skilled musicians, arrangers, composers, and teachers. The courses of study will include basic theory and keyboard skills. The skills sets will prepare students for careers in performing, private teaching, arranging, and directing ensembles.

Program Learning Outcomes
1. Synthesize technical and stylistic skills of solo and ensemble performance of literature for and with classical guitar.

Required Courses:

MUS 6 Fundamentals of Music 3

MUS 10 Music Appreciation 3

MUS 16 Applied Music: Winds, Strings, Brass, Piano, Voice, and Percussion 2

MUS 33A Classical Guitar I 1

MUS 33B Classical Guitar II 1

MUS 33C Classical Guitar III 1

MUS 33D Classical Guitar IV 1

MUS 51B Class Piano II 1

Take 4 Units from a Performance Ensemble 4

Total Units 17
Jazz Studies Skills Certificate

Program Learning Outcomes
1. Through analysis of characteristics of various historical periods, assess the aesthetic values in Jazz and the role Jazz plays in American culture.
2. Evaluate the effects of world influence.

Required Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 5</td>
<td>Beginning Jazz/Pop Music Theory</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>MUS 6</td>
<td>Fundamentals of Music</td>
</tr>
<tr>
<td>MUS 9A</td>
<td>Advanced Jazz Theory/Beginning Jazz Arranging</td>
<td>3</td>
</tr>
<tr>
<td>MUS 11A</td>
<td>Jazz Appreciation</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>MUS 11LA</td>
<td>Latin American Music Appreciation</td>
</tr>
<tr>
<td>MUS 12</td>
<td>World Music</td>
<td>3</td>
</tr>
<tr>
<td>MUS 24A</td>
<td>Beginning Jazz Improvisation</td>
<td>1</td>
</tr>
<tr>
<td>MUS 24B</td>
<td>Intermediate Jazz Improvisation</td>
<td>1</td>
</tr>
<tr>
<td>MUS 24C</td>
<td>Advanced Jazz Improvisation</td>
<td>1</td>
</tr>
<tr>
<td>MUS 51A</td>
<td>Class Piano I</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Take 4 Units from a Performance Ensemble</td>
<td>4</td>
</tr>
<tr>
<td>Total Units</td>
<td>17</td>
<td></td>
</tr>
</tbody>
</table>

Jazz/Pop Voice Skills Certificate

Program Learning Outcomes
1. Synthesize technical and stylistic skills of solo and ensemble singing to perform Jazz and popular music.

Required Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 5</td>
<td>Beginning Jazz/Pop Music Theory</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>MUS 6</td>
<td>Fundamentals of Music</td>
</tr>
<tr>
<td>MUS 11A</td>
<td>Jazz Appreciation</td>
<td>3</td>
</tr>
<tr>
<td>MUS 13A</td>
<td>Survey of American Popular Music</td>
<td>3</td>
</tr>
<tr>
<td>MUS 15A</td>
<td>Beginning Jazz and Popular Solo Voice</td>
<td>1</td>
</tr>
<tr>
<td>MUS 15B</td>
<td>Advanced Jazz and Popular Solo Voice</td>
<td>1</td>
</tr>
<tr>
<td>MUS 15C</td>
<td>Jazz/Pop Solo Voice Stylization</td>
<td>1</td>
</tr>
<tr>
<td>MUS 17A</td>
<td>Beginning Voice</td>
<td>1</td>
</tr>
<tr>
<td>MUS 27</td>
<td>Beginning Popular Guitar Techniques</td>
<td>1</td>
</tr>
<tr>
<td>or</td>
<td>MUS 51A</td>
<td>Class Piano I</td>
</tr>
<tr>
<td></td>
<td>Take 4 Units from a Performance Ensemble</td>
<td>4</td>
</tr>
<tr>
<td>Total Units</td>
<td>15</td>
<td></td>
</tr>
</tbody>
</table>

Jazz/Rock Guitar Skills Certificate

Program Learning Outcomes
1. Perform with proficiency, comparing and contrasting stylistic properties of Jazz and Rock music and the role of the guitar in these styles.

Required Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 5</td>
<td>Beginning Jazz/Pop Music Theory</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>MUS 6</td>
<td>Fundamentals of Music</td>
</tr>
<tr>
<td>MUS 11A</td>
<td>Jazz Appreciation</td>
<td>3</td>
</tr>
<tr>
<td>MUS 24A</td>
<td>Beginning Jazz Improvisation</td>
<td>1</td>
</tr>
<tr>
<td>MUS 24B</td>
<td>Intermediate Jazz Improvisation</td>
<td>1</td>
</tr>
<tr>
<td>MUS 24C</td>
<td>Advanced Jazz Improvisation</td>
<td>1</td>
</tr>
<tr>
<td>MUS 51A</td>
<td>Class Piano I</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Take 4 Units from a Performance Ensemble</td>
<td>4</td>
</tr>
<tr>
<td>Total Units</td>
<td>16</td>
<td></td>
</tr>
</tbody>
</table>

Latin American Music Skills Certificate

Program Learning Outcomes
1. Through analysis of characteristics of music from various Latin cultures and historical periods, assess its aesthetic values and influences on American culture.

Required Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 5</td>
<td>Beginning Jazz/Pop Music Theory</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>MUS 6</td>
<td>Fundamentals of Music</td>
</tr>
<tr>
<td>MUS 11LA</td>
<td>Latin American Music Appreciation</td>
<td>3</td>
</tr>
<tr>
<td>MUS 24A</td>
<td>Beginning Jazz Improvisation</td>
<td>1</td>
</tr>
<tr>
<td>MUS 27</td>
<td>Beginning Popular Guitar Techniques</td>
<td>1</td>
</tr>
<tr>
<td>or</td>
<td>MUS 51A</td>
<td>Class Piano I</td>
</tr>
<tr>
<td></td>
<td>Take 4 Units from a Performance Ensemble</td>
<td>4</td>
</tr>
<tr>
<td>Total Units</td>
<td>14</td>
<td></td>
</tr>
</tbody>
</table>
234 | M u s i c

Music Technology Skills Certificate

Voice Skills Certificate

Program Description:
This certificate program prepares students for a career in the music
industry. The program is designed to produce mid-level to professionallevel producers, engineers, and musicians. The course of study will
cover all aspects of the skill production process including recording,
marketing, and distribution. The skill set will prepare students for careers
in digital audio, recording, production, electronic music composition, as
well as arranging, songwriting, and sound design.
Program Learning Outcomes:
1. Create professional quality musical products that demonstrate
knowledge and skill in the following areas: digital audio, recording, production, electronic music composition, arranging, song
writing, and sound design.Required Courses
Required Courses:
MUS 5
Beginning Jazz/Pop Music Theory . . . . . . . . . . . . . . 3
or
MUS 6
Fundamentals of Music. . . . . . . . . . . . . . . . . . . . . . . 3
MUS 7
Music Synthesis, Sampling, and Electronic Music . . 3
MUS 28
Popular Songwriting . . . . . . . . . . . . . . . . . . . . . . . . . 2
MUS 31A
Fundamental Recording Techniques I HISTORIC. . 1.5
and
MUS 31B
Fundamental Recording Techniques II. . . . . . . . . . 1.5
or
MUS 31LS
Recording Techniques III: Live Sound Production. 1.5
MUS 51A
Class Piano I. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1
MUS 57A
Music and Computers I: Digital Audio Workstation1.5
and
MUS 57B
Music and Computers II: Electronic Music Composition
1.5
or
MUS 57NS
Music and Computers III: Music Notation and Scoring
1.5
Total Units
12-15

Program Learning Outcomes
1. Analyze and perform Classical vocal music , demonstrating techniques
and stylistic performance practice unique to each period of music.
Required Courses:
MUS 5
Beginning Jazz/Pop Music Theory . . . . . . . . . . . . . . 3
or
MUS 6
Fundamentals of Music . . . . . . . . . . . . . . . . . . . . . . 3
MUS 10
Music Appreciation . . . . . . . . . . . . . . . . . . . . . . . . . 3
MUS 16
Applied Music: Winds, Strings, Brass, Piano,
Voice, and Percussion . . . . . . . . . . . . . . . . . . . . . . . 2
MUS 17A
Beginning Voice . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1
MUS 17B
Intermediate Voice . . . . . . . . . . . . . . . . . . . . . . . . . . 1
MUS 17C
Advanced Voice . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1
MUS 17LD
Lyric Diction . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1
MUS 51A
Class Piano I . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1
Take 4 Units from a Performance Ensemble Units
4
Total Units
17

Piano Skills Certificate
Program Learning Outcomes
1. Perform piano literature with proficiency in technique and musicality,
demonstrating knowledge and analysis of historical and technical developments of the keyboard.
Required Courses:
MUS 6
Fundamentals of Music . . . . . . . . . . . . . . . . . . . . . . 3
MUS 10
Music Appreciation . . . . . . . . . . . . . . . . . . . . . . . . . 3
MUS 22A
Intermediate Piano . . . . . . . . . . . . . . . . . . . . . . . . . . 1
MUS 22B
Romantic and Contemporary Keyboard Techniques 1
MUS 23
Advanced Piano . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1
MUS 51A
Class Piano I . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1
MUS 51B
Class Piano II . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1
MUS 51C
Class Piano III . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1
MUS 51D
Class Piano IV . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1
MUS 68
Piano Ensemble . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1
MUS 68CP
The Collaborative Pianist . . . . . . . . . . . . . . . . . . . . . 1
Total Units
15

Music Courses
MUS 1

Comprehensive Music Theory I

3 units; 3 hours Lecture, 1 hour Laboratory
Corequisite: MUS 1M.
Recommended Preparation: MUS 6 or MUS 5 or equivalent skills; Eligibility
for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Introduces and develops the study of common practice harmony and
melody through figured bass and analysis as represented by the works
of Bach and Handel; knowledge of scales, key signatures, intervals and
chords, equivalent to MUS 5 or MUS 6, is necessary to succeed in this
course. Some of the class hours for this course may be scheduled as To
Be Arranged (TBA). See the Schedule of Classes for the details about this
course offering.
Transfer Credit: Transfers to CSU; UC.

MUS 1M

Musicianship I

1 unit; 0.5 hour Lecture, 3.5 hours Laboratory
Corequisite: MUS 1.
Recommended Preparation: MUS 5 or MUS 6; Eligibility for ENGL 100 and
READ 100.
Repeatability: May be taken 1 time.
Teaches and develops ear training, dictation and sightsinging, including solfeggio; this is the musicianship component of theory for music
majors and minors. Some of the class hours for this course may be
scheduled as To Be Arranged (TBA). See the Schedule of Classes for the
details about this course offering.
Transfer Credit: Transfers to CSU; 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.
Repeatability: May be taken 1 time.
Continues development of written skills and analysis from MUS 1, including formal analysis, chromatic harmony, secondary dominants and introduction to modulation. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.
Transfer Credit: Transfers to CSU; UC.

MUS 2M Musicianship II
1 unit; 0.5 hour Lecture, 3.5 hours Laboratory
Prerequisite: MUS 1M or equivalent skills.
Corequisite: MUS 2.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Continues development of sightsinging, dictation and ear-training skills from MUS 1M. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.
Transfer Credit: Transfers to CSU; 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.
Repeatability: May be taken 1 time.
Continues development of harmonic and melodic understanding of music literature from MUS 2, including chromaticism, modulation and altered chords. Need not be taken in sequence with Music 4 and 4M. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.
Transfer Credit: Transfers to CSU; UC.

MUS 3M Musicianship III
1 unit; 0.5 hour Lecture, 3.5 hours Laboratory
Prerequisite: MUS 2M or equivalent skills.
Corequisite: MUS 3.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Advances aural skills from MUS 2M including sevenths, modulation, non-scale tones, harmonic dictation from Roman numerals and solfeggio. Developing the rhythmic, melodic and harmonic materials of Music Theory III. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.
Transfer Credit: Transfers to CSU; 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.
Repeatability: May be taken 1 time.
Concludes the required music major series with advanced studies in harmonic and formal analysis of late 19th and 20th century through present-day techniques and composition; need not be taken sequentially from MUS 2. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.
Transfer Credit: Transfers to CSU; UC.

MUS 4M Musicianship IV
1 unit; 0.5 hour Lecture, 3.5 hours Laboratory
Prerequisite: MUS 2M or equivalent skills.
Corequisite: MUS 4.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Advances aural skills in sight singing and melodic, harmonic and rhythmic dictation continued from either MUS 2M or MUS 3M, to develop materials from Music Theory IV through ear-training. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.
Transfer Credit: Transfers to CSU; 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.
Repeatability: May be taken 1 time.
Introduces fundamentals of jazz theory and related modern music, from rhythmic notation, clefs, and intervals through 13th chords with alterations. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.
Transfer Credit: Transfers to CSU; UC.

MUS 6 Fundamentals of Music
3 units; 3 hours Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Introduces common practice musical notation through musical reading of notes, rhythms, key signatures, intervals, chords and progressions. May be taught in a Distance-Learning Format. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.
Transfer Credit: Transfers to CSU; 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: MUS 5 or MUS 6 or equivalent skills; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Introduces the use of synthesizers and digital sampling in the composition of electronic music. Topics include: analog synthesis, digital synthesis, digital sampling, sample editing, digital processing, MIDI and electronic music composition, including "hands-on" experience for individual projects. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.
Transfer Credit: Transfers to CSU. Transfers to CSU.

MUS 9A  Advanced Jazz Theory/Beginning Jazz Arranging
3 units; 3 hours Lecture, 1 hour Laboratory
Recommended Preparation: MUS 5 or MUS 6 or equivalent skills; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Continues study of jazz theory and introduces jazz arranging, including chord spelling, chord progression, rhythm, melody, notation and instrument ranges. Studies form and music arranging for nine pieces. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.
Transfer Credit: Transfers to CSU; UC.

MUS 10  Music Appreciation
3 units; 3 hours Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Studies Western Classical music literature from the Middle Ages to the present, developing the understanding and enjoyment of music and its ability to communicate ideas and emotion. Concert attendance required. May be offered in a Distance-Learning Format. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.
Transfer Credit: Transfers to CSU; UC. C-ID MUS 100

MUS 10M  Historical Survey of Music
3 units; 3 hours Lecture, 1 hour Laboratory
Prerequisite: MUS 5 or MUS 6 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC.

MUS 11A  Jazz Appreciation
3 units; 3 hours Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Develops aesthetic criteria for examining and evaluating jazz performances. Designed for the student to become an active listener of jazz. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.
Transfer Credit: Transfers to CSU; UC.

MUS 11LA  Latin American Music Appreciation
3 units; 3 hours Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Introduces the folk and popular musical traditions of Latin American cultures, with an emphasis on cultural roots and the evolution of contemporary regional styles. May be offered in a Distance-Learning Format. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.
Transfer Credit: Transfers to CSU; UC.

MUS 12  World Music
3 units; 3 hours Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Survey 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. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.
Transfer Credit: Transfers to CSU; 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.
Repeatability: May be taken 1 time.
Surveys American popular music as represented by pop, rock, jazz, classical, country western, theatre music, regional and traditional folk and music and their cross cultural and world music influences. Concert attendance required. May be offered in a Distance-Learning Format. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.
Transfer Credit: Transfers to CSU; UC.
MUS 15A  Beginning Jazz and Popular Solo Voice  
1 unit; 0.5 hour Lecture, 2.5 hours Laboratory  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Introduces 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. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.  
Transfer Credit: Transfers to CSU.

MUS 15B  Advanced Jazz and Popular Solo Voice  
1 unit; 0.5 hour Lecture, 2.5 hours Laboratory  
Prerequisite: MUS 15A or equivalent skills.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Studies and performs advanced level songs in the popular and jazz idioms, incorporating stylistic elements from MUS15A. Analysis of historical and motivational aspects of performances.  
Transfer Credit: Transfers to CSU.

MUS 15C  Jazz/Pop Solo Voice Stylization  
1 unit; 0.5 hour Lecture, 2.5 hours Laboratory  
Prerequisite: MUS 15B or equivalent skills.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Concludes the study and performance of jazz and popular song repertoire with an emphasis on stylistic interpretation and articulation inherent to swing, latin, rock, and other popular songs. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.  
Transfer Credit: Transfers to CSU.

MUS 16  Applied Music: Winds, Strings, Brass, Piano, Voice, and Percussion  
1 unit; 1 hour Lecture, 1 hour Laboratory  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken a total of 4 times.  
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 for scholarship consideration.  
Transfer Credit: Transfers to CSU; UC.

MUS 17A  Beginning Voice  
1 unit; 0.5 hour Lecture, 2.5 hours Laboratory  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Introduces fundamentals of singing techniques, including breath support and tone production, through the study of traditional vocal repertoire from the baroque through contemporary periods. Students should have some ability to read music. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.  
Transfer Credit: Transfers to CSU; UC.

MUS 17B  Intermediate Voice  
1 unit; 0.5 hour Lecture, 2.5 hours Laboratory  
Prerequisite: MUS 17A or equivalent skills.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
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 through present-day. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.  
Transfer Credit: Transfers to CSU; UC.

MUS 17C  Advanced Voice  
1 unit; 0.5 hour Lecture, 2.5 hours Laboratory  
Prerequisite: MUS 17B or equivalent skills.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Continues the study of singing techniques, emphasizing more advanced practices to build resonance, legato tone and stylistic interpretation of Classical singing styles. Classical and Musical Theater repertoire by composers from the Baroque to the present day will be studied. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.  
Transfer Credit: Transfers to CSU; UC.

MUS 17LD  Lyric Diction  
1 unit; 0.5 hour Lecture, 2.5 hours Laboratory  
Recommended Preparation: MUS 17A or equivalent experience; Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Presents the fundamentals of technique in articulation and pronunciation as applied to singing in English, Italian, German, French and Spanish. Drills to acquire maximum fluency and flexibility of speech organs involved in diction and a study of the International Phonetic Alphabet will be included. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.  
Transfer Credit: Transfers to CSU; UC, pending review.
MUS 18A  Beginning Wind (Band) Instruments  
1 unit; 0.5 hour Lecture, 3.5 hours Laboratory  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Provides group instruction on flute, oboe, bassoon, clarinet, saxophone, trumpet, French horn, trombone, baritone, and tuba. No experience necessary. Students should provide their own instruments. Some instruments are available for checkout from the music department. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering. Transfer Credit: Transfers to CSU; UC.

MUS 18B  Intermediate Wind (Band) Instruments  
1 unit; 0.5 hour Lecture, 3.5 hours Laboratory  
Recommended Preparation: MUS 18A or equivalent experience; Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Continues group instruction for intermediate wind players: flute, clarinet, saxophone, oboe, bassoon, trumpet, trombone, French horn and bass. Emphasis is on increasing tone production and musicality through sight-reading and rehearsal techniques. Transfer Credit: Transfers to CSU; UC.

MUS 18CB  Intermediate Concert Band  
1 unit; 0.5 hour Lecture, 1.5 hours Laboratory  
Recommended Preparation: MUS 18A or equivalent skills, demonstrated by audition; Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 4 times.  
Continues the study and performance of band literature for intermediate wind players: flute, clarinet, saxophone, oboe, bassoon, trumpet, trombone, French horn, bass and percussion. Emphasis is on sight-reading and rehearsal techniques. Must have ability to read intermediate music at sight and play an instrument with intermediate proficiency. Public performance is required for credit. Transfer Credit: Transfers to CSU; UC.

MUS 18JB  Intermediate Jazz Band  
1 unit; 0.5 hour Lecture, 1.5 hours Laboratory  
Recommended Preparation: MUS 18A or equivalent experience, determined by audition; 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 rhythm 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. Public performance is required for credit. Transfer Credit: Transfers to CSU; UC.

MUS 19AA  Beginning Strings I  
1 unit; 0.5 hour Lecture, 3.5 hours Laboratory  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Provides beginning level group instruction in how to play the violin, viola, cello and string bass; no experience necessary. Students should provide their own instruments. Some are available for class use only. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering. Transfer Credit: Transfers to CSU; UC, pending review.

MUS 19BB  Beginning Strings II  
1 unit; 0.5 hour Lecture, 3.5 hours Laboratory  
Recommended Preparation: MUS 19AA or equivalent skills; Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Continues group instruction in the development of the technical and musical skills necessary to play orchestral string instruments (violin, viola, cello, string bass.) Students should provide their own instruments; some are available for class use only. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering. Transfer Credit: Transfers to CSU; UC, pending review.

MUS 20  Intermediate Orchestra Instruments  
1 unit; 0.5 hour Lecture, 3.5 hours Laboratory  
Recommended Preparation: MUS 18A or MUS 19; Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken a total of 4 times.  
Continues technical studies for string and orchestra wind players: violin, viola, cello, string bass, flute, oboe, bassoon, trombone, trumpet, clarinet, French horn and piano, culminating in public performance, including sight reading and rehearsal techniques. Must have ability to read intermediate music at sight and play an instrument with proficiency. Transfer Credit: Transfers to CSU; UC.

MUS 22A  Intermediate Piano  
1 unit; 0.5 hour Lecture, 3.5 hours Laboratory  
Prerequisite: MUS 51B or equivalent skills.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Continues technical studies, improvisation, performance, and practicing of piano literature. Students should be able to play simple pieces with independent hands for classical and popular styles. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering. Transfer Credit: Transfers to CSU; UC.
MUS 22B  Romantic and Contemporary Keyboard Techniques
1 unit; 0.5 hour Lecture, 3.5 hours Laboratory
Prerequisite: MUS 22A or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Studies stylistic techniques and performance practice of keyboard literature from the Romantic and Contemporary periods: designed for piano majors and minors. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.
Transfer Credit: Transfers to CSU; UC, pending review.

MUS 23  Advanced Piano
1 unit; 0.5 hour Lecture, 3.5 hours Laboratory
Prerequisite: MUS 22B or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Continues technical keyboard studies with an emphasis on performance, literature, analysis, interpretation and style through the study of solo, collaborative and piano ensemble repertoire.
Transfer Credit: Transfers to CSU; UC.

MUS 24A  Beginning Jazz Improvisation
1 unit; 0.5 hour Lecture, 2.5 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Introduces elements 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, equivalent to one to two years of study.
Transfer Credit: Transfers to CSU; UC.

MUS 24ADV  Stylistic Jazz Improvisation
1 unit; 0.5 hour Lecture, 1.5 hours Laboratory
Prerequisite: MUS 24C or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Concludes the Jazz Improvisation program of study, with an emphasis on characteristics of historical styles and literature in the Jazz medium.
Transfer Credit: Transfers to CSU; UC, pending review.

MUS 24B  Intermediate Jazz Improvisation
1 unit; 0.5 hour Lecture, 2.5 hours Laboratory
Prerequisite: MUS 24A or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Continues the study of basics and scale foundations for jazz improvisation initiated in MUS 24A, including altered chords and altered scales.
Transfer Credit: Transfers to CSU; UC.

MUS 24C  Advanced Jazz Improvisation
1 unit; 0.5 hour Lecture, 1.5 hours Laboratory
Prerequisite: MUS 24B or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Continues the study of increasingly sophisticated jazz techniques to perform improvised solos to “standards” and other jazz compositions, improvising both by memory and by reading chord symbols.
Transfer Credit: Transfers to CSU; UC.

MUS 26A  Beginning Jazz/Rock Guitar Techniques
1 unit; 0.5 hour Lecture, 2.5 hours Laboratory
Recommended Preparation: MUS 27; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Introduces guitar techniques commonly used in jazz and rock music, including extended chords, chord substitutions, modes, scale patterns, comping, chord melody playing; students should have experience equivalent to a beginning popular guitar techniques course. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.
Transfer Credit: Transfers to CSU; UC.

MUS 26B  Advanced Jazz/Rock Guitar Techniques
1 unit; 0.5 hour Lecture, 2.5 hours Laboratory
Prerequisite: MUS 26A or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Continues study of guitar techniques with in-depth fretboard technique, extended harmony chord substitution, improvisation techniques and chord solo playing. Students should have experience equivalent to a jazz/rock guitar course. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.
Transfer Credit: Transfers to CSU; UC.

MUS 26C  Jazz/Rock Guitar III
1 unit; 0.5 hour Lecture, 2.5 hours Laboratory
Prerequisite: MUS 26B or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Continues study of advanced guitar techniques including whole tone and diminished scales, with an emphasis on the use of chord extensions and alterations when playing chord melodies. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.
Transfer Credit: Transfers to CSU; UC, pending review.
MUS 27  Beginning Popular Guitar Techniques
1 unit; 0.5 hour Lecture, 2.5 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Studies basic guitar techniques for popular and jazz music: student should have own instrument and knowledge of at least eight chords on the guitar. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.
Transfer Credit: Transfers to CSU; UC.

MUS 28  Popular Songwriting
2 units; 1 hour Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Teaches techniques and ideas for the songwriter and the serious student of popular music; popular songs, and student compositions are discussed in terms of form, rhythm, melody, harmony and the lyrics/music relationship. Basics of copyrights and publishing will also be covered. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.
Transfer Credit: Transfers to CSU.

MUS 31A  Fundamental Recording Techniques I
1.5 units; 1.5 hours Lecture, 2 hours Laboratory
Recommended Preparation: MUS 5 or MUS 6 or equivalent skills; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Introduces basic recording and music production skills, utilizing computer-based technologies; students will have individual lab time for “hands on” experience. Topics include analog/digital, signal chain, gain structure, microphones, mic techniques, mixing board, multi-track recording, stereo panorama, mixing, effects, headphones, cables and equipment, safety issues.
Transfer Credit: Transfers to CSU.

MUS 31B  Fundamental Recording Techniques II
1.5 units; 1.5 hours Lecture, 2 hours Laboratory
Prerequisite: MUS 31A or equivalent experience.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Continues development of recording skills for studio musicians and home or professional recording engineers, maximizing the production capabilities of combining computer technology with traditional recording techniques. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.
Transfer Credit: Transfers to CSU.

MUS 31LS  Recording Techniques III: Live Sound Production
1.5 units; 1.5 hours Lecture, 2 hours Laboratory
Prerequisite: MUS 31B or equivalent experience.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Studies elements of sound production related to live performance, including mixing, monitoring, equipment set up, microphoning, EQ, music/theatrical production, event recording. Topics include: House/Monitor mix, cabling and equipment, safety issues.
Transfer Credit: Transfers to CSU.

MUS 31SP  Recording Techniques IV: Studio Production
1.5 units; 1.5 hours Lecture, 2 hours Laboratory
Prerequisite: MUS 31B or equivalent experience.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Studies elements of pre-production, music arranging, rehearsal techniques, scheduling, budgeting, production, multi-track/live studio recording. This course challenges students to synthesize their technical skills and musical knowledge to create, prepare, and fully produce music projects.
Transfer Credit: Transfers to CSU.

MUS 33A  Classical Guitar I
1 unit; 0.5 hour Lecture, 2.5 hours Laboratory
Recommended Preparation: MUS 5 or MUS 6 or equivalent skills; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Introduces basic classical guitar technique and repertoire for the student 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. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.
Transfer Credit: Transfers to CSU; UC.

MUS 33B  Classical Guitar II
1 unit; 0.5 hour Lecture, 2.5 hours Laboratory
Prerequisite: MUS 33A or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Continues the study of classical guitar techniques from MUS 33A. Emphasis on technique, sight reading, development of repertoire, performance, and transcription and transposition. Student should have experience equivalent to a beginning guitar course. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.
Transfer Credit: Transfers to CSU; UC.
MUS 33C  Classical Guitar III
1 unit; 0.5 hour Lecture, 2.5 hours Laboratory
Prerequisite: MUS 33B or equivalent skills, demonstrated by audition.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatable: May be taken 1 time.
Continues the study of classical guitar techniques and performance practice from MUS 33B. Emphasis on stylistic elements, technique, and performance of repertoire at the intermediate to advanced level graded II-III. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.
Transfer Credit: Transfers to CSU; UC.

MUS 33D  Classical Guitar IV
1 unit; 0.5 hour Lecture, 2.5 hours Laboratory
Prerequisite: MUS 33C or equivalent experience, demonstrated by audition.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatable: May be taken 1 time.
Continues the study of classical guitar techniques and performance practice from MUS 33C, with an emphasis on repertoire-building and stylistic concepts of advanced level music, arranged for solo and ensembles, graded IV-V. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.
Transfer Credit: Transfers to CSU; UC.

MUS 34  Cabrillo Cantata Chorus
1 unit; 5 hours Laboratory
Prerequisite: by audition.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatable: May be taken a total of 4 times.
Rehearses and publicly performs cantatas from the Baroque to the Classical period, emphasizing choral music techniques and stylistic performance practice. Audition to determine proficiency includes: sight-reading, foreign languages and demonstration of musicianship skills. Public performance is required.
Transfer Credit: Transfers to CSU; UC.

MUS 35  College Choir
1 unit; 0.5 hour Lecture, 3.5 hours Laboratory
Prerequisite: Eligibility for ENGL 100 and READ 100.
Repeatable: May be taken a total of 4 times.
Studies traditional choir music arranged for students with no formal choral background, with an emphasis on tone production, rhythm and sight singing skills; students should be able to match pitch and sing a melody. Public performance required.
Transfer Credit: Transfers to CSU; UC.

MUS 36  Chorale
1 unit; 0.5 hour Lecture, 3.5 hours Laboratory
Prerequisite: By audition.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatable: May be taken a total of 4 times.
Rehearses and performs choral literature from various cultures and classical music periods; students should demonstrate basic music reading skills and match pitch. Should be taken in a two semester sequence. Public performance required.
Transfer Credit: Transfers to CSU; UC.

MUS 38  Jazz Singers
1 unit; 0.5 hour Lecture, 3.5 hours Laboratory
Prerequisite: By audition.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatable: May be taken a total of 4 times.
Studies and performs vocal jazz ensemble literature, including choral and solo work, culminating in public performance; audition includes ear-training, prepared singing and sight reading.
Transfer Credit: Transfers to CSU; UC.

MUS 39  Westside Community Folk Song/Gospel Choir
1 unit; 0.5 hour Lecture, 3.5 hours Laboratory
Prerequisite: by audition.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatable: May be taken a total of 4 times.
Studies and performs multicultural choral literature of folk, gospel, African, South American, Asian, and European music; for experienced and inexperienced singers. Students should have the ability to match pitch. Public performance required.
Transfer Credit: Transfers to CSU; UC.

MUS 40  Chamber Music Ensemble
1 unit; 5 hours Laboratory
Prerequisite: Eligibility for ENGL 100 and READ 100.
Repeatable: May be taken a total of 4 times.
Studies and performs 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; UC.

MUS 44  Repertory Jazz Ensemble
1 unit; 5 hours Laboratory
Prerequisite: By audition.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatable: May be taken a total of 4 times.
Studies and performs professional level jazz ensemble repertoire published from the dance band era to present day literature; enrollment by audition only. Must be able to read music at sight and play an instrument with proficiency. Public performance required. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.
Transfer Credit: Transfers to CSU; UC.
MUS 46 Jazz Ensemble
1 unit; 5 hours Laboratory
Prerequisite: By audition.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken a total of 4 times.
Rehearses, records and performs contemporary big band jazz for advanced brass, wind, and rhythm section players. Must be able to read music at sight and play an instrument. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.
Transfer Credit: Transfers to CSU; UC.

MUS 47 Guitar Ensemble
1 unit; 0.5 hour Lecture, 2.5 hours Laboratory
Recommended Preparation: MUS 26A and MUS 26B or equivalent experience or MUS 33A and MUS 33B or equivalent experience; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken a total of 4 times.
Rehearses and performs Classical and popular guitar music arranged for large and small ensembles; for guitarists who read music. Sight reading, following a conductor, group rehearsals, public performances. Students should have music instruction equivalent to MUS 26A and MUS 26B or MUS 33A and MUS 33B. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.
Transfer Credit: Transfers to CSU; UC.

MUS 48 Concert Band
1 unit; 0.5 hour Lecture, 3.5 hours Laboratory
Prerequisite: By audition.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken a total of 4 times.
Rehearses and performs band literature, arranged or composed from the Baroque through Contemporary periods; students must have the ability to read music at sight and play a wind or a percussion instrument at college level.
Transfer Credit: Transfers to CSU; UC.

MUS 49 College Symphonic Winds
1 unit; 0.5 hour Lecture, 3.5 hours Laboratory
Prerequisite: By audition.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken a total of 4 times.
Rehearses and performs contemporary symphonic wind repertoire, with correct playing techniques applicable to the stylistic demands of contemporary 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; UC.

MUS 50 Jazz Repertory Workshop
1 unit; 0.5 hour Lecture, 2.5 hours Laboratory
Recommended Preparation: MUS 24C or equivalent skills; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken a total of 4 times.
Provides participation in rehearsal and performance of compositions written in the jazz idiom for small groups of brass, wind and rhythm section players. Emphasis on chord progression analysis, solo devices, and improvisation. Audition required.
Transfer Credit: Transfers to CSU; UC.

MUS 51A Class Piano I
1 unit; 0.5 hour Lecture, 3.5 hours Laboratory
Prerequisite: MUS 51A or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.
Transfer Credit: Transfers to CSU; UC.

MUS 51B Class Piano II
1 unit; 0.5 hour Lecture, 3.5 hours Laboratory
Prerequisite: MUS 51B or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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 a beginning piano course, with an understanding of basic technique, theory and music reading. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.
Transfer Credit: Transfers to CSU; UC.

MUS 51C Class Piano III
1 unit; 0.5 hour Lecture, 3.5 hours Laboratory
Recommended Preparation: MUS 51B or equivalent skills; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Continues the development of piano technique, including scales and arpeggios, chord progressions and sight reading, with an emphasis on hand coordination to achieve musicality. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.
Transfer Credit: Transfers to CSU; UC, pending review.
MUS 51D  Class Piano IV
1 unit; 0.5 hour Lecture, 3.5 hours Laboratory
Recommended Preparation: MUS 51C or equivalent skills; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Concludes the class piano series with an emphasis on scales, arpeggios, basic chord progressions, sight reading techniques and playing music arranged for two hands together. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this class offering.
Transfer Credit: Transfers to CSU; UC, pending review.

MUS 51J  Jazz Piano Techniques
1 unit; 0.5 hour Lecture, 3.5 hours Laboratory
Recommended Preparation: MUS 51A or equivalent skills; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Studies jazz piano style through group piano lessons, including chord symbols, voicings, extensions, substitutions, progressions and rhythmic patterns. Simple melodic techniques and accompaniment.
Transfer Credit: Transfers to CSU; UC.

MUS 52  Percussion Ensemble
1 unit; 0.5 hour Lecture, 3.5 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken a total of 4 times.

Introduces performance techniques of drums and percussion instruments used in contemporary jazz, popular, classical and world music. Explores rhythmic development and coordination in sectional and full ensemble settings, with the intention of public performance.
Transfer Credit: Transfers to CSU; UC.

MUS 52LA  Latin American Drumming
1 unit; 0.5 hour Lecture, 3.5 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Develops hand drumming technique and rhythmic comprehension through the exploration of African-influenced Latin American rhythms. Studies rhythms from Cuba and other Caribbean cultures, Brazil, Colombia, Venezuela, and Peru.
Transfer Credit: Transfers to CSU; UC.

MUS 53  Baroque Chamber Ensemble
1 unit; 5 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken a total of 4 times.

Studies and performs chamber music from the Baroque and other eras for strings, winds, percussion and piano. Discussion and lecture of Baroque style and interpretation; required public performance. Must have the ability to read music at sight and play an instrument with proficiency.
Transfer Credit: Transfers to CSU; UC.

MUS 54  Repertory Chamber Ensemble
1 unit; 5 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken a total of 4 times.

Studies and performs chamber music for winds, strings, piano and percussion in large chamber groupings, with an emphasis on repertoire from the Classical period to present day. 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; UC.

MUS 55  Cabrillo Orchestra
1 unit; 0.5 hour Lecture, 3.5 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken a total of 4 times.

Rehearses and performs standard orchestral literature from Baroque through Classical periods; must have ability to read music at sight and play an instrument with proficiency.
Transfer Credit: Transfers to CSU; UC.

MUS 56  Latin American Music Ensemble
1 unit; 0.5 hour Lecture, 3.5 hours Laboratory
Prerequisite: By audition.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken a total of 4 times.

Studies and performs music from selected Latin American cultures in an ensemble setting. Must be proficient on an instrument or voice, as demonstrated by audition.
Transfer Credit: Transfers to CSU; UC.

MUS 57A  Music and Computers I: Digital Audio Workstation
1.5 units; 1.5 hours Lecture, 1 hour Laboratory
Recommended Preparation: MUS 5 or MUS 6 or equivalent experience; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Introduces computer-based music production through the use of a Digital Audio Workstation; includes equipment set-up, MIDI sequencing, digital audio, mixing, editing and software instruments.
Transfer Credit: Transfers to CSU.

MUS 57B  Music and Computers II: Electronic Music Composition
1.5 units; 1.5 hours Lecture, 2 hours Laboratory
Prerequisite: MUS 57A or equivalent experience.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Continues the study of computer-based music production, with an emphasis on electronic music composition, synthesis sound design, utilizing current hardware and software programs.
Transfer Credit: Transfers to CSU.
MUS 57NS  Music and Computers III: Music Notation and Scoring
1.5 units; 1.5 hours Lecture, 2 hours Laboratory
Prerequisite: MUS 57A or MUS 57B or equivalent experience.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken a total of 4 times.
Prepares students for intermediate/advanced work in music publication, composition, arranging and production, incorporating music preparation, data entry, editing, layout, playback styles and software instruments.
Transfer Credit: Transfers to CSU.

MUS 58  Cabrillo Symphonic Orchestra
1 unit; 0.5 hour Lecture, 1.5 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken a total of 4 times.
Rehearses and performs Romantic through Contemporary classical 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; UC.

MUS 60  Jazz Combo
1 unit; 0.5 hour Lecture, 1.5 hours Laboratory
Recommended Preparation: MUS 24C or equivalent skills; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken a total of 4 times.
Preparation and performance of all types of popular music using the principles of jazz improvisation in a small group setting. Knowledge of Jazz Improvisation (equivalent to MUS 24B and MUS 24C) is recommended for this course. Audition required.
Transfer Credit: Transfers to CSU; UC.

MUS 61  Cabrillo Symphonic Chorus
1 unit; 5 hours Laboratory
Prerequisite: By audition.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken a total of 4 times.
Provides an in-depth study of choral music techniques and performance of large choral ensemble masterworks from the Classical, Romantic and Contemporary periods, a cappella and with orchestra. Audition includes sight-reading, foreign languages, and demonstration of musicianship skills. Public performance required. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.
Transfer Credit: Transfers to CSU; UC.

MUS 63  Chamber Choir
1 unit; 5 hours Laboratory
Prerequisite: By audition.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken a total of 4 times.
Rehearses and performs traditional through avant-garde vocal chamber literature, with an emphasis on the development of appropriate choral skills. Audition includes the demonstration of musicianship through sight reading and singing a prepared solo. Public performance required. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.
Transfer Credit: Transfers to CSU; UC.

MUS 64  Cantiamo Cabrillo
1 unit; 5 hours Laboratory
Prerequisite: By audition.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken a total of 4 times.
Rehearses and performs literature arranged for a vocal chamber ensemble, from the Renaissance to the modern era including opera scenes. Audition includes sight reading, ear-training, demonstration of language skills. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.
Transfer Credit: Transfers to CSU; UC.

MUS 65  Cabrillo Touring Chorus
1 unit; 5 hours Laboratory
Prerequisite: By audition.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken a total of 4 times.
Provides 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.
Transfer Credit: Transfers to CSU; UC.

MUS 66  Opera Workshop
1 unit; 5 hours Laboratory
Prerequisite: By audition.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken a total of 4 times.
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. Audition includes sight reading and prepared solo.
Transfer Credit: Transfers to CSU; UC.
MUS 67  Opera Theater Production  
1 unit; 5 hours Laboratory  
Prerequisite: By audition.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken a total of 4 times.  
Studies musical and dramatic elements of opera theatre and production culminating in a publically performed opera.  
Transfer Credit: Transfers to CSU; UC.

MUS 68  Piano Ensemble  
1 unit; 0.5 hour Lecture, 3.5 hours Laboratory  
Prerequisite: MUS 51B or equivalent skills.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken a total of 4 times.  
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. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.  
Transfer Credit: Transfers to CSU; UC.

MUS 68CP  The Collaborative Pianist  
1 unit; 0.5 hour Lecture, 3.5 hours Laboratory  
Recommended Preparation: MUS 51B or equivalent skills; Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken a total of 4 times.  
Introduces collaboration techniques for pianists in performing duos with other instruments and voice, and in the accompaniment of choral repertoire. Intended for students with an understanding of technique, theory and music reading at an intermediate to advanced skill level.  
Transfer Credit: Transfers to CSU; UC.

MUS 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 1 time.  
Introduces basic techniques of presenting musical theatre on stage, including training in singing, acting and movement.  
Transfer Credit: Transfers to CSU; UC.

MUS 75  Musical Theatre Production  
1 - 3 units; 5 hours Laboratory  
Prerequisite: By audition.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 4 times.  
Rehearsal and performance of musical and musical comedy literature with concentration on all aspects of the production related to professional performance; audition by musical theatre staff is required for enrollment.  
Transfer Credit: Transfers to CSU; UC.

MUS 76MT  Musical Theatre Workshop Activity  
0.5 - 3 units; 2.5 hours Laboratory  
Prerequisite: By audition.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken a total of 4 times.  
Develops skills applicable to musical theatre performance, through participation in all musical aspects of a production: open to students cast in the production on-stage or in the orchestra.  
Transfer Credit: Transfers to CSU; UC, pending review.

MUS 77  Correlation of the Arts  
3 units; 3 hours Lecture, 1 hour Laboratory  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Studies similarities and differences in creativity, aesthetics and style of the visual arts, music, and theatre arts through literature, analysis and performance, developing an awareness and understanding of art in our culture. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.  
Transfer Credit: Transfers to CSU; UC.

MUS 85AZ  Studies in Music  
1 - 3 units; 0.5 hour Lecture, 1.5 hours Laboratory  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Investigates specialized topics in Music. The specific course content will be described in the schedule of classes. May be offered in a Distance-Learning Format.  
Transfer Credit: Transfers to CSU; 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.

MUS 250  Music Laboratory  
0.5 unit; 1 hour Laboratory  
Repeatability: May be taken 1 time.  
Provides supervised audio/video/computer lab work relating to other Music course curriculum, designed to increase and improve student skills and concepts. Each 1/2 unit lab section requires 18 hours of study. Pass/No Pass only. Enrollment is permitted through the twelfth week of instruction.

MUS 534  Cabrillo Cantata Chorus For Seniors  
0 units; 0.5 hour Lecture, 3.5 hours Laboratory  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: This course may be repeated.  
Provides participation in the rehearsal and performance of choral music, emphasizing cantatas and seasonal music. Audition includes sight-reading, ear-training, demonstration of language skills. For those who are proficient in voice or an instrument as demonstrated by audition. Designed for senior citizens.
MUS 539  Westside Community Choir for Seniors
0 units; 0.5 hour Lecture, 3.5 hours Laboratory
Repeatability: This course may be repeated.
Studies and performs multicultural choral literature (folk, gospel, African, South American, Asian and European music); designed for senior citizens. For experienced and inexperienced singers, students should have the ability to match pitch. Public performance required.

MUS 540  Chamber Music Ensemble for Older Adults
0 units; 5 hours Laboratory
Repeatability: This course may be repeated.
Studies and performs chamber music for strings, winds, percussion and piano; designed for older adults. 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. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.

MUS 546  Jazz Ensemble for Seniors
0 units; 5 hours Laboratory
Prerequisite: By audition.
Repeatability: This course may be repeated.
Rehearses and performs literature arranged for jazz ensemble, designed for senior citizens. For those who are proficient in voice or an instrument as demonstrated by audition.

MUS 547  Guitar Ensemble for Older Adults
0 units; 0.5 hour Lecture, 2.5 hours Laboratory
Repeatability: This course may be repeated.
Provides participation in the rehearsal and performance of guitar music arranged for large and small ensembles; for guitarists who read music. Designed for senior citizens.

MUS 548  Concert Band For Seniors
0 units; 0.5 hour Lecture, 3.5 hours Laboratory
Prerequisite: By audition.
Repeatability: This course may be repeated.
Rehearses and performs band literature, arranged or composed from the Baroque through Contemporary periods. Designed for senior citizens.

MUS 549  College Symphonic Winds For Seniors
0 units; 0.5 hour Lecture, 3.5 hours Laboratory
Prerequisite: By audition.
Repeatability: This course may be repeated.
Studies and performs Contemporary symphonic wind repertoire; designed for senior citizens.

MUS 550  Jazz Repertory Workshop For Older Adults
0 units; 0.5 hour Lecture, 1.5 hours Laboratory
Recommended Preparation: MUS 24C or equivalent skills
Repeatability: This course may be repeated.
Studies analysis, memorization, chord progression and stylistic elements of compositions from the Dixieland, Swing, Be-bop and Cool Jazz eras, arranged for small groups of brass, wind and rhythm section; designed for older adults. For those who are proficient in voice or an instrument as demonstrated by audition.

MUS 553  Baroque Chamber Ensemble for Older Adults
0 units; 5 hours Laboratory
Repeatability: This course may be repeated.
Studies and performs chamber music from the Baroque era for strings, winds, percussion and piano; designed for older adults. Discussion and lecture of Baroque style and interpretation; required public performance. Must have the ability to read music at sight and play an instrument with proficiency.

MUS 555  Cabrillo Orchestra For Seniors
0 units; 0.5 hour Lecture, 3.5 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: This course may be repeated.
Provides participation in the rehearsal and performance of standard orchestral literature: students must have the ability to read music at sight and play an orchestral instrument at college level proficiency. Designed for senior citizens.

MUS 556  Latin American Music Ensemble for Older Adults
0 units; 0.5 hour Lecture, 3.5 hours Laboratory
Repeatability: This course may be repeated.
Studies and performs music from selected Latin American cultures in an ensemble setting; designed for older adults. For those who are proficient in voice or an instrument as demonstrated by audition.

MUS 558  Cabrillo Symphonic Orchestra For Seniors
0 units; 0.5 hour Lecture, 3.5 hours Laboratory
Repeatability: This course may be repeated.
Rehearses and performs orchestral literature from the Baroque through Contemporary periods. Students must have the ability to read music and play an orchestral instrument at college level proficiency. Designed for senior citizens.

MUS 560  Jazz Combos For Older Adults
0 units; 0.5 hour Lecture, 1.5 hours Laboratory
Recommended Preparation: MUS 24C or equivalent skills
Repeatability: This course may be repeated.
Preparation and performance of all types of popular music using the principles of jazz improvisation in a small group setting; designed for older adults. For those who are proficient in voice or an instrument as demonstrated by audition.
MUS 561 Cabrillo Symphonic Chorus For Seniors
0 units; 5 hours Laboratory
Prerequisite: By audition.
Repeatability: This course may be repeated.
Provides participation in the rehearsal and performance of choral literature; audition includes sight reading, ear-training, demonstration of language skills. Designed for senior citizens. May be repeated. For those who are proficient in voice or an instrument as demonstrated by audition.

MUS 563 Cabrillo Chamber Choir for Seniors
0 units; 5 hours Laboratory
Prerequisite: By audition.
Repeatability: This course may be repeated.
Provides participation in the rehearsal and performance of traditional through avant-garde vocal chamber ensemble literature. Designed for senior citizens. Audition includes the demonstration of musicianship through sight reading and singing a prepared solo. Public performance required. For those who are proficient in voice or an instrument as demonstrated by audition.

MUS 564 Cantiamo Cabrillo for Seniors
0 units; 5 hours Laboratory
Prerequisite: By audition.
Repeatability: This course may be repeated.
Provides participation in the rehearsal and performance of vocal chamber ensemble designed for senior citizens. Audition includes sight reading, ear-training, demonstration of language skills. Repertoire includes Renaissance through present day, and opera scenes. For those who are proficient in voice or an instrument as demonstrated by audition.

MUS 565 Cabrillo Women's Choir for Seniors
0 units; 0.5 hour Lecture, 3.5 hours Laboratory
Repeatability: This course may be repeated.
Rehearses and performs choral music arranged for women's voices; designed for senior citizens.

NURSING
Health, Athletics, Wellness, and Kinesiology Division
Ian Haslam, Division Dean
Division Office, Room 1102
Dorothy Nunn, Director of Nursing Education, (831) 479-6130
Nursing Education Department Office, Room HW2143, (831) 479-6280
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 786-4734
For more information: http://www.cabrillo.edu

Nursing A.S. Degree
Program Description:
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 on the website www.cabrillo.edu/academics/nursing and in the Nursing Education Department Office, Room HW2135. General college application materials are available: in the Admissions and Records Office, Enrollment Services Center, Building 100, (831) 479-6201; onlinewww.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 during open application periods 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.

Your GPA will not improve with repetition of prerequisite courses with passing grades of either A, B, or C. Substandard grades (D or F) can be retaken and your GPA can be modified.

**Prerequisites**

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<tr>
<th>Course</th>
<th>Description</th>
<th>Units</th>
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<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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<td>BIO 6</td>
<td>Microbiology</td>
<td>4</td>
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<td>ENGL 1A/1AH/1AMC/1AMCH</td>
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(MATH 154, or equivalent is a prerequisite for CHEM 30A; CHEM 30A or CHEM 32 **is a prerequisite for BIO 5 and BIO 6.)

**Math Competency Requirement**

The A.S. Degree

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.

**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.

**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 will be evaluated for placement and may enter the 2nd or 3rd semester of the Nursing 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.assist.org.

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<td>Human Physiology</td>
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<td>BIO 6</td>
<td>Microbiology</td>
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<td>CHEM 30A</td>
<td>Inorganic Chemistry for Health Occupations</td>
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<td>CHEM 30B</td>
<td>Introductory Organic Chemistry and Biochemistry for Health Occupations</td>
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<td>or</td>
<td>CHEM 32</td>
<td>Chemistry for the Allied Health Major</td>
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<td>or</td>
<td>MATH 12H</td>
<td>Honors Elementary Statistics</td>
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<tr>
<td>PSYCH 1</td>
<td>General Psychology</td>
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<tr>
<td>or</td>
<td>PSYCH 1H</td>
<td>Honors General Psychology</td>
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Consult appropriate catalog for specific requirements.
General Education + Prerequisites

Nursing students are exempt from the 3 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 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) 30

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 program specific graduation requirements.

Program Learning Outcomes:

1. Provide safe patient and family-centered nursing care, assuming responsibility and accountability for role function in the practice of nursing as defined by the nurse practice act and professional standards of nursing.
2. Demonstrate a holistic approach to patient and family-centered care taking into consideration the physiological, psychological, socio-cultural, developmental, and spiritual dimensions of care.
3. Provide health teaching with the goals of promoting healthy behaviors, reducing stressors, and enhancing coping resources for the patient/family/community.
4. Integrate knowledge of legal aspects of care, demonstrating ethical and caring comportment, respecting patient/family/community preferences and values when providing patient care in a variety of health care environments.
5. Function effectively within nursing and inter-professional teams incorporating leadership principles, including delegation and supervision of nursing being delivered by others, to achieve quality patient care.
6. Incorporate the use of data and information technology to monitor the outcomes of care

Core Courses (40 Units)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>N 14</td>
<td>Foundations of Nursing Practice: Theory I</td>
<td>4</td>
</tr>
<tr>
<td>N 24</td>
<td>Nursing in Wellness and Illness: Theory II</td>
<td>5</td>
</tr>
<tr>
<td>N 34</td>
<td>Nursing in Wellness and Illness: Theory III</td>
<td>5</td>
</tr>
<tr>
<td>N 44</td>
<td>Nursing in Wellness and Illness: Theory IV</td>
<td>3</td>
</tr>
<tr>
<td>N 15</td>
<td>Clinical Skills and Nursing Practicum I</td>
<td>4</td>
</tr>
<tr>
<td>N 25</td>
<td>Clinical Skills and Nursing Practicum II</td>
<td>4</td>
</tr>
<tr>
<td>N 35</td>
<td>Clinical Practicum and Nursing Care Management III</td>
<td>5</td>
</tr>
<tr>
<td>N 45</td>
<td>Clinical Practicum and Nursing Care Management IV</td>
<td>3.5</td>
</tr>
<tr>
<td>N 16</td>
<td>Basic Nursing Skills and Medications Laboratory I</td>
<td>1.5</td>
</tr>
<tr>
<td>N 26</td>
<td>Advanced Nursing Skills and Medications Laboratory II</td>
<td>1.5</td>
</tr>
<tr>
<td>N 17</td>
<td>Pharmacology A</td>
<td>0.5</td>
</tr>
<tr>
<td>N 27</td>
<td>Pharmacology B</td>
<td>0.5</td>
</tr>
<tr>
<td>N 48</td>
<td>Clinical Nursing Preceptorship</td>
<td>2.5</td>
</tr>
</tbody>
</table>

Additional Graduation Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 1</td>
<td>Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COMM 1H</td>
<td>Honors Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total Units 70

*Nursing Electives: not required for Nursing Degree

ALH 101 A Review of Anatomy and Physiology | 2
N 105 Role Transition | 1
N 109A-D Nursing Skills Practice Lab 1-4 | 1–3
N 199C Nursing Cooperative Work Experience | 1–4

Nursing Courses

N 14  Foundations of Nursing Practice: Theory I

4 units; 4 hours Lecture
Prerequisite: Acceptance to the Cabrillo Nursing Program.
Corequisite: N 15 and N 16
Hybrid Requisite: Completion of or concurrent enrollment in N 17.
Repeatability: May be taken 1 time.

Develops a knowledge base needed to provide beginning nursing care to patients in perinatal and medical-surgical settings, focusing on prevention, treatment and restoration of health for patients with common health issues.

Transfer Credit: Transfers to CSU.

N 15  Clinical Skills and Nursing Practicum I

4 units; 12 hours Laboratory
Prerequisite: Acceptance to the Cabrillo Nursing Program.
Corequisite: N 14 and N 16.
Hybrid Requisite: Completion of or concurrent enrollment in N 17.
Repeatability: May be taken 1 time.

Offers supervised experience in providing nursing care at a beginning level, applying the nursing process and the Neuman Systems Model to patients with routine health issues in perinatal and medical-surgical settings.

Transfer Credit: Transfers to CSU.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Hours</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>N 16</td>
<td>Basic Nursing Skills and Medications Laboratory I</td>
<td>1.5</td>
<td>3</td>
<td>1 hour Lecture and 2 hours Laboratory. Prerequisite: Acceptance to the Cabrillo Nursing Program. Corequisite: N 14 and N 15. Hybrid Requisite: Completion of or concurrent enrollment in N 17. Repeatability: May be taken 1 time. Provides theory and laboratory application of selected beginning nursing skills. Transfer Credit: Transfers to CSU.</td>
</tr>
<tr>
<td>N 17</td>
<td>Pharmacology A</td>
<td>0.5</td>
<td>0.5</td>
<td>Prerequisite: Acceptance to the Cabrillo Nursing Program. Corequisite: N 14 and N 15. Repeatability: May be taken 1 time. Introduces basic pharmacologic principles of nursing care for adults with common health issues. Transfer Credit: Transfers to CSU.</td>
</tr>
<tr>
<td>N 24</td>
<td>Nursing in Wellness and Illness: Theory II</td>
<td>5</td>
<td>5</td>
<td>Prerequisite: N 14 and N 15 and N 16 and N 17. Corequisite: N 25 and N 26. Hybrid Requisite: Completion of or concurrent enrollment in N 27. Repeatability: May be taken 1 time. Extends the knowledge base needed to provide intermediate nursing care to patients and families in pediatric and medical-surgical settings, focusing on prevention, treatment, and restoration of health for patients with selected health issues. Transfer Credit: Transfers to CSU.</td>
</tr>
<tr>
<td>N 26</td>
<td>Advanced Nursing Skills and Medications Laboratory II</td>
<td>1.5</td>
<td>3.5</td>
<td>1 hour Lecture and 2 hours Laboratory. Prerequisite: N 14 and N 15 and N 16 and N 17. Corequisite: N 24 and N 25. Hybrid Requisite: Completion of or concurrent enrollment in N 27. Repeatability: May be taken 1 time. Provides theory with laboratory application of selected advanced nursing skills. Transfer Credit: Transfers to CSU.</td>
</tr>
<tr>
<td>N 27</td>
<td>Pharmacology B</td>
<td>0.5</td>
<td>0.5</td>
<td>Prerequisite: N 14 and N 15 and N 16 and N 17. Corequisite: N 24 and N 25 and N 26. Repeatability: May be taken 1 time. Advances theoretical and applied knowledge of drug therapy for patient care. Transfer Credit: Transfers to CSU.</td>
</tr>
<tr>
<td>N 34</td>
<td>Nursing in Wellness and Illness: Theory III</td>
<td>5</td>
<td>5</td>
<td>Prerequisite: N 24 and N 25 and N 26 and N 27. Corequisite: N 35. Repeatability: May be taken 1 time. Expands the knowledge base needed to provide nursing care to patients with moderately complex health problems in medical-surgical, geriatric and community settings. Transfer Credit: Transfers to CSU.</td>
</tr>
<tr>
<td>N 35</td>
<td>Clinical Practicum and Nursing Care Management III</td>
<td>5</td>
<td>15</td>
<td>Prerequisite: N 24 and N 25 and N 26 and N 27. Corequisite: N 34. Repeatability: May be taken 1 time. Applies the nursing process and the Neuman Systems Model to provide more advanced nursing care to patients with moderately complex acute and chronic health problems in geriatric, medical-surgical, and community settings. Transfer Credit: Transfers to CSU.</td>
</tr>
<tr>
<td>N 44</td>
<td>Nursing in Wellness and Illness: Theory IV</td>
<td>3</td>
<td>3</td>
<td>Prerequisite: N 34 and N 35. Corequisite: N 45. Repeatability: May be taken 1 time. Expands the knowledge base needed to provide nursing care to patients and families with complex psychosocial and physiological health issues in a variety of psychiatric and medical-surgical settings. Transfer Credit: Transfers to CSU.</td>
</tr>
<tr>
<td>N 45</td>
<td>Clinical Practicum and Nursing Care Management IV</td>
<td>3.5</td>
<td>11.6</td>
<td>Prerequisite: N 34 and N 35. Corequisite: N 44. Repeatability: May be taken 1 time. Applies the nursing process and the Neuman Systems Model to provide comprehensive nursing care to patients 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 patients in the medical-surgical setting. Transfer Credit: Transfers to CSU.</td>
</tr>
</tbody>
</table>
N 48  Clinical Nursing Preceptorship  
2.5 units; 7.5 hours Laboratory  
Prerequisite: N 44 and N 45.  
Repeatability: May be taken 1 time.  
Applies leadership skills to provide comprehensive management and  
direct care for a group of patients in a medical-surgical or specialty set-  
ting under the direct supervision of a preceptor.  
Transfer Credit: Transfers to CSU.

N 103  Pharmacology in the Clinical Setting  
2 units; 2 hours Lecture  
Prerequisite: N 27 or equivalent, or RN or LVN license.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
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 and 1 hour Laboratory  
Prerequisite: LVN. All nursing prerequisites must be completed.  
Repeatability: May be taken 1 time.  
Facilitates Licensed Vocational Nurses in their transition to the  
Registered Nurse role prior to entering the Nursing Program with  
advanced standing. Covers standards of nursing care, critical thinking  
skills and application of the nursing process using the Neuman Systems  
Model.

N 109A  Nursing Skills Practice Lab I  
1 - 2 units; 3 hours Directed Study  
Corequisite: Current enrollment in the first semester of the Cabrillo nursing  
program or permission from Nursing Academic Skills Specialist.  
Repeatability: May be taken 1 time.  
Provides resources for independent study of nursing skills-related  
activities to students in the first semester of the Cabrillo nursing pro-  
gram.

N 109B  Nursing Skills Practice Lab II  
1 - 2 units; 3 hours Directed Study  
Corequisite: Current enrollment in the second semester of the Cabrillo nurs-  
ing program or permission from Nursing Academic Skills Specialist.  
Repeatability: May be taken 1 time.  
Provides resources for independent study of nursing skills-related  
activities to students in the second semester of the Cabrillo nursing pro-  
gram and to re-entry or advanced placement students.

N 109C  Nursing Skills Practice Lab III  
1 - 3 units; 3 hours Directed Study  
Corequisite: Current enrollment in the third semester of the Cabrillo nursing  
program or permission from the Nursing Academic Skills Specialist.  
Repeatability: May be taken 1 time.  
Provides resources for independent study and review of nursing skills-  
related activities to students in the third semester of the Cabrillo nursing  
program and to re-entry or advanced placement students.

N 109D  Nursing Skills Practice Lab IV  
1 - 3 units; 3 hours Directed Study  
Corequisite: Current enrollment in the fourth semester of the Cabrillo nursing  
program or permission from the Nursing Academic Skills Specialist.  
Repeatability: May be taken 1 time.  
Provides resources for independent study and review of nursing skills-  
related activities to students in the fourth semester of the Cabrillo nurs-  
ing program and to re-entry or advanced placement students.

NUTRITION  
See: Culinary Arts and Hospital Management

OCEANOGRAPHY  
Natural and Applied Sciences Division  
Wanda Garner, Division Dean  
Division Office, Room 701  
David Schwartz, Program Chair, (831) 479-6495  
Aptos Counselor: (831) 479-6274 for appointment  
Watsonville Counselor: (831) 786-4734  
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: Eligibility for ENGL 100 and READ 100; Eligibility  
for MATH 154.  
Repeatability: May be taken 1 time.  
Introduces some of the more important phenomena in oceanography:  
geological, chemical, physical and biological relationships. May be  
offered in a Distance-Learning Format.  
Transfer Credit: Transfers to CSU; UC.

OCEAN 20  Coastal Environmental Monitoring;  
Field Studies in Oceanography  
1 - 3 units; 1 hour Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Introduces the students to "at sea experience" as well as explores  
careers and educational needs required to enter the broad field of marine  
science and technology. Students will go out to sea and study shipboard  
operations, seawater chemistry, marine navigation using Global  
Positioning Systems (GPS) and hand-held compasses, and marine eco-  
logy and plankton.  
Transfer Credit: Transfers to CSU.
Philosophy A.A. Degree

Program Description

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

An Associate Degree requires 60 units appropriate to your educational goal, to include general education and at least 18 units in a major. Courses should be selected to meet the lower-division major preparation requirements at your intended transfer university--these specific requirements can be found at www.assist.org for 4-year public institutions in California. Please see a counselor for advisement to ensure you are taking the best possible courses given your goal.

The department presents the following suggested model program for this major. The courses listed below may or may not be appropriate depending on your specific goal. Please see a counselor for advisement for transfer to any 4-year institution.

A.A. General Education

Core Courses (15 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIO 4</td>
<td>* Introduction to Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>PHIO 10</td>
<td>Ethics</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>PHIO 10H</td>
<td>Honors Ethics</td>
</tr>
<tr>
<td>PHIO 12</td>
<td>Symbolic Logic</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>PHIO 6</td>
<td>* History of Philosophy: Ancient and Medieval</td>
</tr>
<tr>
<td>PHIO 7</td>
<td>* History of Philosophy: Modern</td>
<td>3</td>
</tr>
<tr>
<td>PHIO 12</td>
<td>Symbolic Logic</td>
<td>3</td>
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</table>

Approved Electives (9 Units)

<table>
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<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIO 4</td>
<td>Introduction to Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>PHIO 6</td>
<td>History of Philosophy: Ancient and Medieval</td>
<td>3</td>
</tr>
<tr>
<td>PHIO 7</td>
<td>History of Philosophy: Modern</td>
<td>3</td>
</tr>
<tr>
<td>PHIO 8</td>
<td>Philosophy of Religion</td>
<td>3</td>
</tr>
<tr>
<td>PHIO 9</td>
<td>Philosophy of Mind</td>
<td>3</td>
</tr>
<tr>
<td>PHIO 14</td>
<td>Non-Western Philosophical Traditions</td>
<td>3</td>
</tr>
<tr>
<td>PHIO 15</td>
<td>Patterns in Comparative Religions</td>
<td>3</td>
</tr>
<tr>
<td>PHIO 16</td>
<td>Contemporary Moral Issues</td>
<td>3</td>
</tr>
<tr>
<td>PHIO 17</td>
<td>Latin American Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>PHIO 49</td>
<td>Introduction to Critical Thinking</td>
<td>3</td>
</tr>
</tbody>
</table>

Electives: (Any Course Numbered 1-99) | Units: 6 |

Total Units: 60

*instead of 6 & 7

Philosophy Courses

PHIO 4 Introduction to Philosophy

3 units; 3 hours Lecture

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Repeatability: May be taken 1 time.

Introduces 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; UC.

PHIO 6 History of Philosophy: Ancient and Medieval

3 units; 3 hours Lecture

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Repeatability: May be taken 1 time.

Surveys 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; UC: CAN PHIL8

PHIO 7 History of Philosophy: Modern

3 units; 3 hours Lecture

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Repeatability: May be taken 1 time.

Surveys philosophical thought, including the Renaissance and modern periods.

Transfer Credit: Transfers to CSU; UC: CAN PHIL10
PHILO 8  Philosophy of Religion  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Examines and analyzes the meanings and beliefs involved in religion and religious experience.  
Transfer Credit: Transfers to CSU; UC.

PHILO 9  Philosophy of Mind  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Analyzes philosophical issues of mind/body and personal identity, including treatments of artificial intelligence, intentionality, and free will vs. determinism.  
Transfer Credit: Transfers to CSU; UC.

PHILO 10  Ethics  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Examines problems of good, evil, and various systems of ethics including human conduct in social, economic, and political activities.  
Transfer Credit: Transfers to CSU; UC.

PHILO 10H  Honors Ethics  
3 units; 3 hours Lecture  
Prerequisite: Honors standing.  
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.  
Repeatability: May be taken 1 time.  
Examines problems of good, evil, and various systems of ethics including human conduct in social, economic, and political activities. Highlights student research, writing, and reporting, both individually and as part of a learning community, and will often meet in a seminar format.  
Transfer Credit: Transfers to CSU; UC.

PHILO 12  Symbolic Logic  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Introduces symbolic logic including the formalization of ordinary language arguments and tests of deductive validity.  
Transfer Credit: Transfers to CSU; UC.

PHILO 14  Non-Western Philosophical Traditions  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Introduces non-western philosophical systems including those from India, China, Japan—and their relevance to contemporary western experience.  
Transfer Credit: Transfers to CSU; UC.

PHILO 15  Patterns in Comparative Religions  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Reviews and compares treatments of philosophical issues arising in 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; UC.

PHILO 16  Contemporary Moral Issues  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Analyzes philosophical issues in the areas of social, environmental, technological, biomedical and/or 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; UC.

PHILO 17  Latin American Philosophy  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Introduces the philosophical trends of Mexico, Central and South America including essays from Augusto Salazar Bondy, Sor Juana Inés de la Cruz, Jose Carlos Mariategui, Octavio Paz, and Leopoldo Zea.  
Transfer Credit: Transfers to CSU; UC pending review.

PHILO 39AZ  Philosophy Studies  
1 - 3 units; 1 hour Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
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; 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/1AH/1AMC/1AMCH.  
Repeatability: May be taken 1 time.  
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.  
Transfer Credit: Transfers to CSU; UC.
### PHYSICAL EDUCATION:
see KINESIOLOGY

### PHYSICS

**Natural and Applied Sciences Division**
Wanda Garner, Division Dean
Division Office, Room 701
Joe McCullough, Program Chair, (831) 479-6521
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 786-4734
Call (831) 479-6328 for more information
http://www.cabrillo.edu/programs

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Physics

**Physics A.S.-T Transfer Degree**

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. Cabrillo offers options for degrees in Physics.

The first option listed below is an Associate in Science in Physics for Transfer (A.S.-T), which is intended for students who plan to complete a bachelor’s degree in a similar major at a CSU campus. Students completing these degrees are guaranteed admission to the CSU system, but not to a particular campus or major. See Associate Degree for Transfer information in the Cabrillo College Catalog.

The following is required for all A.A.-T or A.S.-T degrees:
- Completion of 60 CSU-transferable semester units.
- Minimum grade-point average (GPA) of at least 2.0 in all CSU-transferable coursework. While a minimum of 2.0 is required for admission, some majors may require a higher GPA.
- Completion of a minimum of 18 semester units in the major with a letter grade of “C” or better. A “P” grade is not acceptable for courses in the major.
- Certified completion of the California State University General Education-Breadth pattern (CSU GE Breadth) or the Intersegmental General Education Transfer Curriculum (IGETC) pattern.

**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.

**Completion IGETC (for CSU)**

<table>
<thead>
<tr>
<th>General Education Requirements</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>37 - 39</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Core Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 4A</td>
<td>Physics for Scientists and Engineers I</td>
</tr>
<tr>
<td>PHYS 4B</td>
<td>Physics for Scientists and Engineers II</td>
</tr>
<tr>
<td>PHYS 4C</td>
<td>Physics for Scientists and Engineers III</td>
</tr>
<tr>
<td>and</td>
<td></td>
</tr>
<tr>
<td>MATH 5A</td>
<td>Analytic Geometry and Calculus I</td>
</tr>
<tr>
<td>MATH 5B</td>
<td>Analytic Geometry and Calculus II</td>
</tr>
<tr>
<td>MATH 5C</td>
<td>Analytic Geometry and Calculus III</td>
</tr>
</tbody>
</table>

**Total Units** | 52 - 54

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**Physics A.S. Degree**

**Program Description**
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**
This Associate Degree requires 60 units appropriate to your educational goal, to include general education and at least 30 units in a major.

Courses should be selected to meet the lower-division major preparation requirements at your intended transfer university—these specific requirements can be found at www.assist.org for 4-year public institutions in California. Please see a counselor for advisement to ensure you are taking the best possible courses given your goal.

The department presents the following suggested model program for this major. The courses listed below may or may not be appropriate depending on your specific goal. Please see a counselor for advisement.
for transfer to any 4-year institution.

**Physics A.S. Degree**

**A.S. General Education**

<table>
<thead>
<tr>
<th>Core Courses (39 units)</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 5A Analytic Geometry and Calculus I</td>
<td>5</td>
</tr>
<tr>
<td>MATH 5B Analytic Geometry and Calculus II</td>
<td>5</td>
</tr>
<tr>
<td>MATH 5C Analytic Geometry and Calculus III</td>
<td>5</td>
</tr>
<tr>
<td>MATH 6 *Introduction to Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MATH 7 Introduction to Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 4A Physics for Scientists and Engineers I</td>
<td>5</td>
</tr>
<tr>
<td>PHYS 4B <strong>Physics for Scientists and Engineers II</strong></td>
<td>5</td>
</tr>
<tr>
<td>PHYS 4C *Physics for Scientists and Engineers III</td>
<td>5</td>
</tr>
<tr>
<td>PHYS 4D ***Modern Physics</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Units** 60

*spring only; **fall only; ***fall, even years only

**Physics Courses**

**PHYS 2A General Physics I**

4 units; 3 hours Lecture, 4 hours Laboratory

Prerequisite: MATH 4 or MATH 2 and MATH 3 or equivalent knowledge.

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Repeatability: May be taken 1 time.

Covers mechanics, heat and waves primarily for life science students. Fall semester only. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.

Transfer Credit: Transfers to CSU; UC, with limits: PHYS 2A, 2B and 4A, 4B, 4C combined: maximum credit, one series. Deduct credit for duplication of topics. C-ID PHYS 105; PHYS 2A + PHYS 2B = C-ID PHYS 100S

**PHYS 2B General Physics II**

4 units; 3 hours Lecture, 4 hours Laboratory

Prerequisite: PHYS 2A.

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Repeatability: May be taken 1 time.

Covers electromagnetism, optics, relativity, and the atom primarily for life science students. Spring semester only. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.

Transfer Credit: Transfers to CSU; UC, with limits: PHYS 2A, 2B and 4A, 4B, 4C combined: maximum credit, one series. Deduct credit for duplication of topics. C-ID PHYS 110; PHYS 2A + PHYS 2B = C-ID PHYS 100S

**PHYS 4A Physics for Scientists and Engineers I**

5 units; 4 hours Lecture, 5 hours Laboratory

Prerequisite: PHYS 11 or a "B" or better in high school physics.

Hybrid Requisite: Completion of or concurrent enrollment in MATH 5B.

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Repeatability: May be taken 1 time.

Covers classical mechanics, fluids, and waves for scientists and engineers. This is the first course in the calculus-based physics sequence. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.

Transfer Credit: Transfers to CSU; UC. C-ID PHYS 205; PHYS 4A + PHYS 4B + PHYS 4C = C-ID PHYS 200S

+ PHYS 4C = C-ID PHYS 200S

**PHYS 4B Physics for Scientists and Engineers II**

5 units; 4 hours Lecture, 5 hours Laboratory

Prerequisite: PHYS 4A.

Hybrid Requisite: Completion of or concurrent enrollment in MATH 5C.

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Repeatability: May be taken 1 time.

Covers electricity and magnetism for scientists and engineers. This is the second course in the calculus-based physics sequence. Students enrolled in the Honors Transfer Program may count this course towards the "Honors Scholar" designation. Fall semester only. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.

Transfer Credit: Transfers to CSU; UC. C-ID PHYS 210; PHYS 4A + PHYS 4B + PHYS 4C = C-ID PHYS 200S

**PHYS 4C Physics for Scientists and Engineers III**

5 units; 4 hours Lecture, 5 hours Laboratory

Prerequisite: PHYS 4A.

Hybrid Requisite: Completion of or concurrent enrollment in MATH 5C.

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Repeatability: May be taken 1 time.

Covers thermodynamics, optics, and introduction to modern physics for scientists and engineers. This is the third course in the calculus-based physics sequence. Students enrolled in the Honors Transfer Program may count this course towards the "Honors Scholar" designation. Spring semester only. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.

Transfer Credit: Transfers to CSU; UC. C-ID PHYS 215; PHYS 4A + PHYS 4B + PHYS 4C = C-ID PHYS 200S

**PHYS 4D Modern Physics**

3 units; 3 hours Lecture

Prerequisite: PHYS 4C.

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Repeatability: May be taken 1 time.

Covers relativity, quantum mechanics and nuclear physics for scientists and engineers. Fall semester only, even years.

Transfer Credit: Transfers to CSU; UC.
PHYS 10  Introduction to Physics
3 units; 3 hours Lecture
Prerequisite: MATH 154.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Covers conceptual topics in physics for the non-science major (PHYS 10L lab optional).
Transfer Credit: Transfers to CSU; 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.

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.
Repeatability: May be taken 1 time.
Provides a hands-on exploration of topics in physics for the non-science major.
Transfer Credit: Transfers to CSU; 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.

PHYS 11  Elementary Physics
4 units; 3 hours Lecture, 4 hours Laboratory
Prerequisite: MATH 4 or MATH 2 and MATH 3 or equivalent knowledge.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Prepares students for the PHYS 4 sequence by introducing classical mechanics, thermodynamics, electromagnetism, atoms and nuclei. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.
Transfer Credit: Transfers to CSU; UC, with limits: PHYS 10, 11 & 12 combined: maximum credit- 4 units. No credit for PHYS 10/10L, 11 or 12 if taken after 2A or 4A.

PHYS 12  Conceptual Modern Physics
3 units; 3 hours Lecture
Prerequisite: MATH 154.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Covers conceptual topics in modern physics for the non-science major.
Transfer Credit: Transfers to CSU; UC, with limits: PHYS 10, 11 & 12 combined: maximum credit- 4 units. No credit for PHYS 10/10L, 11 or 12 if taken after 2A or 4A.

### Political Science

**Political Science A.A.-T Transfer Degree**

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. Political science majors are prepared to transfer and pursue Bachelor’s and graduate degrees in political science, law, education, journalism and business.

Cabrillo offers options for degrees in Political Science. The first option listed below is the Associate in Arts in Political Science for Transfer (A.A.-T), which is intended for students who plan to complete a bachelor’s degree in Political Science or a similar major at a CSU campus. Students completing an A.A.-T/A.S.-T degree are guaranteed admission to the CSU system, but not to a particular campus or major. This degree may not be the best option for students intending to transfer to a particular CSU campus or to a university or college that is not part of the CSU System. See Associate Degree for Transfer information in the Cabrillo College Catalog.

- Completion of 60 CSU-transferable semester units.
- Minimum grade-point average (GPA) of at least 2.0 in all CSU-transferable coursework. While a minimum of 2.0 is required for admission, some majors may require a higher GPA.
- Completion of a minimum of 18 semester units in the major with a letter grade of "C" or better. A "P" grade is not acceptable for courses in the major.
- Certified completion of the California State University General Education-Breadth pattern (CSU GE Breadth) or the Intersegmental General Education Transfer Curriculum (IGETC) pattern.

**POLITICAL SCIENCE**

Human Arts and Social Sciences Division
Isabel O’Connor, Division Dean
Division Office, Room 420
Rory O’Brien, Program Chair, (831) 479-6443
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 786-4734
Call (831) 479-6297 for more information
http://www.cabrillo.edu/programs
Completion of CSU or IGETC General Education Requirements

<table>
<thead>
<tr>
<th>Core Course (3 units)</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PS 1 Introduction to Government</td>
<td>3</td>
</tr>
<tr>
<td>or PS 1H Honors Introduction to Government</td>
<td>3</td>
</tr>
</tbody>
</table>

List A - Take the following 2 courses (6 units)

| PS 2 Comparative Government | 3 |
| or PS 3 International Relations | 3 |

Take one course in Statistics from the list below:

| MATH 12 Elementary Statistics | 5 |
| MATH 12H Honors Elementary Statistics | 5 |
| PSYCH 2A Statistics for Behavioral Sciences | 3 |

List B - Select 2 courses from the following: (6 units)

| ANTHR 2 Introduction to Anthropology: Cultural | 3 |
| or ANTHR 2H Honors Introduction to Anthropology: Cultural (Honors) | 3 |
| BUS 18 Business Law | 4 |
| ECON 1A Introduction to Macroeconomics | 3 |
| ECON 1B Introduction to Microeconomics | 3 |
| GEOG 2 Cultural Geography | 3 |
| HIST 2B World History: 1500 to Present | 3 |
| HIST 4A Survey of Western Civilization to 1648 | 3 |
| or HIST 4AH Honors Survey of Western Civilization to 1648 | 3 |
| HIST 4B Survey of Western Civilization–1648 to Late 20th Century | 3 |
| or HIST 4BH Honors Survey of Western Civilization–1648 to Late 20th Century | 3 |
| PSYCH 1H Honors General Psychology | 3 |
| PS 5 American Political Thought | 3 |
| or PSYCH 1 General Psychology | 3 |
| or SOC 1 Introduction to Sociology: Understanding Society | 3 |
| or SOC 1H Honors Introduction to Sociology: Understanding Society | 3 |
| or Any CSU GE Area D course | 3 |

Electives:

| Units | 1 - 5 |

Total Units | 60 |

**Political Science A.A. Degree**

**Program Description**

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**

An Associate Degree requires 60 units appropriate to your educational goal, to include general education and at least 18 units in a major. Courses should be selected to meet the lower-division major preparation requirements at your intended transfer university—these specific requirements can be found at www.assist.org for 4-year public institutions in California. Please see a counselor for advisement to ensure you are taking the best possible courses given your goal.

The department presents the following suggested model program for this major. The courses listed below may or may not be appropriate depending on your specific goal. Please see a counselor for advisement for transfer to any 4-year institution.

**A.A. General Education 30 Units**

<table>
<thead>
<tr>
<th>Core Courses (12 units)</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PS 1 Introduction to Government</td>
<td>3</td>
</tr>
<tr>
<td>or PS 1H Honors Introduction to Government</td>
<td>3</td>
</tr>
<tr>
<td>PS 2 Comparative Government</td>
<td>3</td>
</tr>
<tr>
<td>or PS 3 International Relations</td>
<td>3</td>
</tr>
<tr>
<td>or PS 5 American Political Thought</td>
<td>3</td>
</tr>
</tbody>
</table>

**Approved Electives (6-9 Units)**

<table>
<thead>
<tr>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 1A Introduction to Macroeconomics</td>
</tr>
<tr>
<td>ECON 1B Introduction to Microeconomics</td>
</tr>
<tr>
<td>HIST 2A World History to 1500</td>
</tr>
<tr>
<td>or HIST 2B World History: 1500 to Present</td>
</tr>
<tr>
<td>or HIST 4A Survey of Western Civilization to 1648</td>
</tr>
<tr>
<td>or HIST 4AH Honors Survey of Western Civilization to 1648</td>
</tr>
<tr>
<td>or HIST 4B Survey of Western Civilization–1648 to Late 20th Century</td>
</tr>
<tr>
<td>or HIST 4BH Honors Survey of Western Civilization–1648 to Late 20th Century</td>
</tr>
<tr>
<td>HIST 16C History of Mexico</td>
</tr>
<tr>
<td>or HIST 19A Introduction to South and Southeast Asian History</td>
</tr>
<tr>
<td>or HIST 19B Introduction to Chinese History</td>
</tr>
<tr>
<td>or HIST 19C Introduction to Japanese History</td>
</tr>
</tbody>
</table>

**Electives:**

| (Any Course numbered 1-99) | 9-12 |

Total Units | 60 |
Political Science Courses

PS 1  Introduction to Government
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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; UC.

PS 1H  Honors Introduction to Government
3 units; 3 hours Lecture
Prerequisite: Honors standing. ENGL 1AMC.
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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, the public policy process, 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. Highlights student research, critical writing and oral reporting, both individually and in group projects.
Transfer Credit: Transfers to CSU; UC.

PS 2  Comparative Government
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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; UC.

PS 3  International Relations
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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; UC.

PS 5  American Political Thought
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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; UC.

PS 39AZ  Special Topics in Political Science
1 - 3 units; 1 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Studies particular political issues, movements, and concepts. Course content will vary with each offering.
Transfer Credit: Transfers to CSU; 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.
Psychology A.A.-T Transfer Degree

Program Description
Psychology is the study of our thinking, feeling and behaving. It is the study of human beings, a very complex phenomenon. 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.

Cabrillo offers options for degrees in Psychology. The first option listed below is the Associate in Arts in Psychology for Transfer (A.A.-T), which is intended for students who plan to complete a bachelor’s degree in a similar major at a CSU campus. Students completing these degrees are guaranteed admission to the CSU system, but not to a particular campus or major. This degree may not be the best option for students intending to transfer to a particular CSU campus or to a university or college that is not part of the CSU system. See Associate Degree for Transfer Information in the Cabrillo College Catalog.

The following is required for all A.A.-T or A.S.-T degrees:

- Completion of 60 CSU-transferable semester units.
- Minimum grade-point average (GPA) of at least 2.0 in all CSU-transferable coursework. While a minimum of 2.0 is required for admission, some majors may require a higher GPA.
- Completion of a minimum of 18 semester units in the major with a letter grade of “C” or better. A “P” grade is not acceptable for courses in the major.
- Certified completion of the California State University General Education-Breadth pattern (CSU GE Breadth) or the Intersegmental General Education Transfer Curriculum (IGETC) pattern.

The second option fulfills requirements for an A.A. Degree in Psychology at Cabrillo College.

Completion of CSU or IGETC General Education Requirements Units

<table>
<thead>
<tr>
<th>Units</th>
<th>Core (10-12 units)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PSYCH 1 General Psychology</td>
</tr>
<tr>
<td>or</td>
<td>PSYCH 1H Honors General Psychology</td>
</tr>
<tr>
<td>or</td>
<td>MATH 12 Elementary Statistics</td>
</tr>
<tr>
<td>or</td>
<td>MATH 12H Honors Elementary Statistics</td>
</tr>
<tr>
<td>or</td>
<td>PSYCH 2A Statistics for Behavioral Sciences</td>
</tr>
<tr>
<td>or</td>
<td>PSYCH 2B Research Methods in Psychology</td>
</tr>
<tr>
<td>List A-Select one course from:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BIO 4 Human Anatomy</td>
</tr>
<tr>
<td>or</td>
<td>BIO 11A General Biology</td>
</tr>
<tr>
<td>List B-Select one course from:</td>
<td></td>
</tr>
<tr>
<td>Any course not used from List A</td>
<td></td>
</tr>
<tr>
<td>PSYCH 6 Introduction to Social Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 8 Introduction to Developmental Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 12 Introduction to Cognitive Psychology</td>
<td>3</td>
</tr>
<tr>
<td>List C-Select one course from:</td>
<td></td>
</tr>
<tr>
<td>Any course not used from Lists A or B</td>
<td></td>
</tr>
<tr>
<td>PSYCH 26 Introduction to Personality Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 31 Introduction to Abnormal Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 33 Personal and Social Adjustment</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 35ABC Death and Dying</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 37ABC Values and Decision Making</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 39ABC Relationships: Marriage and Family</td>
<td>3</td>
</tr>
<tr>
<td>SOC 1 Introduction to Sociology: Understanding Society</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>SOC 1H Honors Introduction to Sociology: Understanding Society</td>
</tr>
</tbody>
</table>

Total Units 60

Note: all courses in the major also meet general education requirements.
Psychology A.A. Degree

Model Program for Psychology

An Associate Degree requires 60 units appropriate to your educational goal, to include general education and at least 18 units in a major. Courses should be selected to meet the lower-division major preparation requirements at your intended transfer university; these specific requirements can be found at www.assist.org for 4-year public institutions in California. Please see a counselor for advisement to ensure you are taking the best possible courses given your goal.

The department presents the following suggested model program for this major. The courses listed below may or may not be appropriate depending on your specific goal. Please see a counselor for advisement for transfer to any 4-year institution.

### A.A. General Education

#### Core Courses (12-14 Units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYCH 1</td>
<td>3</td>
</tr>
<tr>
<td>or PSYCH 1H</td>
<td>3</td>
</tr>
</tbody>
</table>

Choose three of the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYCH 2B</td>
<td>4</td>
</tr>
<tr>
<td>PSYCH 4</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 6</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 8</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 12</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 26</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 31</td>
<td>3</td>
</tr>
<tr>
<td>MATH 12</td>
<td>5</td>
</tr>
<tr>
<td>or MATH 12H</td>
<td>5</td>
</tr>
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### Approved Electives (12 Units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYCH 33</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 35ABC</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 37ABC</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 39ABC</td>
<td>3</td>
</tr>
</tbody>
</table>

Prospective Psychology majors are encouraged to consult a Psychology instructor regarding recommended elective courses.

### Electives:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Any Course numbered 1-99)</td>
<td>4-6</td>
</tr>
</tbody>
</table>

#### Total Units

**60**

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### Psychology Courses

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**PSYCH 1  General Psychology**

3 units; 3 hours Lecture
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken 1 time.

Explores major theories and concepts, methods, and research findings in psychology. Topics include the biological bases of behavior, perception, cognition and consciousness, learning, memory, emotion, motivation, development, personality, social psychology, psychological disorders and therapeutic approaches, and applied psychology. May be offered in a Distance-Learning Format.

*Transfer Credit: Transfers to CSU; UC. C-ID PSY 110*

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**PSYCH 1H  Honors General Psychology**

3 units; 3 hours Lecture
Prerequisite: Honors Standing.
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken 1 time.

Explores major theories and concepts, methods, and research findings in psychology. Topics include the biological bases of behavior, perception, cognition and consciousness, learning, memory, emotion, motivation, development, personality, social psychology, psychological disorders and therapeutic approaches, and applied psychology. Highlights student research, writing, and reporting, both individually and as part of a learning community, and will often meet in a seminar format.

*Transfer Credit: Transfers to CSU; UC. C-ID PSY 110*

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**PSYCH 2A  Statistics for Behavioral Sciences**

3 units; 3 hours Lecture
Prerequisite: MATH 152 or equivalent skills
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Hybrid Requisite: Completion of or concurrent enrollment in PSYCH 1 or PSYCH 1H or SOC 1 or SOC 1H.
Repeatability: May be taken 1 time.

Examines theory and application of statistical methods relevant to social science data. Topics include: descriptive statistics; probability and sampling distributions; statistical inference and power; linear correlation and regression; chi-square; t-tests; and analysis of variance. Applies both hand-computation and statistical software to data in a social science context, including interpretation of the statistical findings.

*Transfer Credit: Transfers to CSU; UC. C-ID SOCI 125*

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**PSYCH 2B  Research Methods in Psychology**

4 units; 3 hours Lecture and 3 hours Laboratory
Prerequisite: PSYCH 1 or PSYCH 1H and PSYCH 2A or MATH 12 or MATH 12H.
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken 1 time.

Surveys various research methods with an emphasis on research design, experimental procedures, descriptive methods, instrumentation, and the collection, analysis, interpretation, and reporting of research data. Research design and methodology are examined through a review of research in a variety of disciplines. In laboratory sessions students will conduct experimental and non-experimental research. Data collected during laboratory sessions will be analyzed with statistical software.

*Transfer Credit: Transfers to CSU; UC.*
PSYCH 4  Introduction to Biological Psychology
3 units; 3 hours Lecture
Prerequisite: PSYCH 1 or PSYCH 1H.
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH; Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Introduces the scientific study of the biological bases of behavior and its fundamental role in the neurosciences. Physiological, hormonal, and neurochemical mechanisms, and brain-behavior relationships underlying the psychological phenomena of sensation, perception, regulatory processes, emotion, learning, memory, and psychological disorders will be addressed. The course also notes historical scientific contributions and current research principles for studying brain-behavior relationships and mental processes. Ethical standards for human and animal research are discussed in the context of both invasive and non-invasive experimental research.
Transfer Credit: Transfers to CSU; UC. C-ID PSY 150

PSYCH 6  Introduction to Social Psychology
3 units; 3 hours Lecture
Prerequisite: PSYCH 1 or PSYCH 1H.
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken 1 time.
Examines individual human behavior in relation to the social environment. Considers the power of social situations, other individuals, and social groups. Topics include conformity, attitude change, social cognition, prejudice, aggression, interpersonal attraction, helping behavior, cultural norms, gender roles, and group phenomena.
Transfer Credit: Transfers to CSU; UC.

PSYCH 8  Introduction to Developmental Psychology
3 units; 3 hours Lecture
Prerequisite: PSYCH 1 or PSYCH 1H.
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken 1 time.
Explores the science of human development across the lifespan, from conception through death. Examines theories and research of physical, cognitive, personality, and social development.
Transfer Credit: Transfers to CSU; 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 or PSYCH 1H.
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken 1 time.
Provides an advanced consideration of mental processes, emphasizing perception, memory, problem-solving, decision-making, and the application of cognitive psychology to practical problems.
Transfer Credit: Transfers to CSU; UC.

PSYCH 20AZ  Current Topics in Psychology
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Study of topics of current importance in of the major fields of psychology. The particular areas of emphasis will be listed in the Schedule of Classes.
Transfer Credit: Transfers to CSU; 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 or PSYCH 1H.
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken 1 time.
Describes and explains individual differences in terms of major personality theories from Freud to the modern day, and introduces contemporary personality research and assessment.
Transfer Credit: Transfers to CSU; UC.

PSYCH 31  Introduction to Abnormal Psychology
3 units; 3 hours Lecture
Prerequisite: PSYCH 1 or PSYCH 1H.
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken 1 time.
Introduces the scientific study of abnormal behavior, including explanations of anxiety, depression, schizophrenias and other disorders. Surveys abnormal behavior from a variety of perspectives including biological, psychological, and sociocultural approaches. Includes intervention and prevention strategies for psychological disorders.
Transfer Credit: Transfers to CSU; UC.

PSYCH 33  Personal and Social Adjustment
3 units; 3 hours Lecture
Prerequisite: PSYCH 1 or PSYCH 1H.
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken 1 time.
Surveys different psychological perspectives and theoretical foundations and how these are applied across a person’s life taking into account the influence of factors such as culture, gender, ethnicity, historical cohort, and socio-economic status. Emphasizes broad understanding of how scientists, clinicians, and practitioners study and apply psychology. Facilitates insight into the self and explores techniques for personal growth and healthy relationships.
Transfer Credit: Transfers to CSU; UC.
PSYCH 35ABC  Death and Dying  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
A 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; UC.

PSYCH 37ABC  Values and Decision Making  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
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.

PSYCH 39ABC  Relationships: Marriage and Family  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
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; UC.

PSYCH 40  Field Experience in Psychology  
3 units; 3 hours Laboratory  
Prerequisite: PSYCH 1 or PSYCH 1H.  
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.  
Repeatability: May be taken 1 time.  
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; UC.

PUBLIC SAFETY  
Human Arts and Social Sciences Division  
Isabel O’Connor, Division Dean  
Division Office, Room 420  
Phil Carr, Program Chair, (831) 477-5227  
Aptos Counselor: (831) 479-6274 for appointment  
Watsonville Counselor: (831) 786-4734  
Call (831) 479-6297 for more information  
http://www.cabrillo.edu/programs

Criminal Justice  
Associate in Science in Administration of Justice for Transfer  
The Criminal Justice Program is designed to provide students with the basic theoretical knowledge, that will prepare them for transfer and for career opportunities in pre-law, law enforcement, or corrections. Specific occupations include: Police Officer, Deputy Sheriff, Community Service Officer, Corrections Officer, Juvenile and Adult Probation Officer and Emergency Services Dispatcher. The program develops a high level of academic, personal, and professional competence demanded in a wide range of agencies.  
Program Student Learning Outcomes:  
A.S.-T/A.A./A.S. Degrees: Upon successful completion of all program requirements, graduates will be able to:  
1. Identify minimum qualifications and the needed skills for successful employment in criminal justice related jobs.  
2. Analyze and explain the historical development of the American Criminal Justice System and its components including law enforcement, courts and corrections.  
3. Explain the historical development and philosophy of criminal law.  
4. Apply principles of the US Constitution and integrate constitutional provisions with the fundamentals of law.  
5. Demonstrate a working knowledge of the rules of evidence, the various kinds of evidence, and the admissibility of evidence.  
6. Discuss criminal procedures from the point of arrest to release and the options available in the process.  
7. Evaluate the ethical and legal issues encountered by professionals involved in the Criminal Justice system.  
Cabrillo offers options for degrees in Criminal Justice. The first option listed below is the Associate in Science in Administration of Justice for Transfer (A.S.-T), which is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing these degrees are guaranteed admission to the CSU system, but not to a particular campus or major. This degree may not be the best option for students intending to transfer.
### Program Description:
The Criminal Justice Program is designed to provide students with the basic theoretical knowledge, that will prepare them for career opportunities in pre-law, law enforcement, or corrections. The program develops a high level of academic, personal, and professional competence demanded in a wide range of agencies. Program Student Learning Outcomes: AA/AS Degree: Upon successful completion of all program requirements, graduates will be able to:

1. Identify minimum qualifications and the needed skills for successful employment in criminal justice related jobs.
2. Analyze and explain the historical development of the American Criminal Justice System and its components including law enforcement, courts and corrections.
3. Explain the historical development and philosophy of criminal law. 4. Apply principles of the US Constitution and integrate constitutional provisions with the fundamentals of law.
4. Demonstrate a working knowledge of the rules of evidence, the various kinds of evidence, and the admissibility of evidence.
5. Discuss criminal procedures from the point of arrest to release and the options available in the process.
6. Evaluate the ethical and legal issues encountered by professionals involved in the Criminal Justice system.

### A.S. General Education GE Units

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<tr>
<td>CS 1  Introduction to Computers and Computer Technology</td>
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</tr>
<tr>
<td>CS 1L Technology Tools</td>
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<tr>
<td>MATH 2 Precalculus Algebra</td>
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#### Electives

(Any Course Numbered 1-99) 1 - 3

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</table>

Note: All courses except CJ, BUS and CS are also general education courses.

Total Units: 60

### Completion of CSU or IGETC

#### General Education Requirements

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>Core Courses (6 units)</td>
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</tr>
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<td>CJ 1  Introduction to Criminal Justice</td>
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<td>List A - Select 2 courses from the following: (6 units)</td>
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<tr>
<td>List B - Select 2 courses from the following: (6-8 units)</td>
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<tr>
<td>Any course(s) listed above</td>
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#### Electives

(Any Course Numbered 1-99) 1 - 3

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Note: All courses except CJ, BUS and CS are also general education courses.

Total Units: 60

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s not part of the CSU system. The following is required for all A.A.-T or A.S.-T degrees:

- Completion of 60 CSU-transferable semester units.
- Minimum grade-point average (GPA) of at least 2.0 in all CSU-transferable coursework. While a minimum of 2.0 is required for admission, some majors may require a higher GPA.
- Completion of a minimum of 18 semester units in the major with a letter grade of “C” or better. A “P” grade is not acceptable for courses in the major.
- Certified completion of the California State University General Education-Breadth pattern (CSU GE Breadth) or the Intersegmental General Education Transfer Curriculum (IGETC) pattern.

### Completion of CSU or IGETC

#### General Education Requirements

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</table>

### List B - Select 2 courses from the following: (6-8 units)

Any course(s) listed above

### Electives

(Any Course Numbered 1-99) 1 - 3

Total Units: 60
## Model Program in Criminal Justice

**Criminal Justice–Corrections Option A.A.**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJ 155D</td>
<td>Law Enforcement Skills and Knowledge Modules</td>
<td>4</td>
</tr>
<tr>
<td>CJ 111</td>
<td>Self Defense for Law Enforcement</td>
<td>3</td>
</tr>
</tbody>
</table>

**Electives:**

(Any Course numbered 1-199) 5 - 8 units

**Total Units** 60

*These courses are not transferable to four-year universities.*

## Criminal Justice–Corrections Option A.A. Degree

### Model Program in Criminal Justice

An Associate Degree requires 60 units appropriate to your educational goal, to include general education and at least 18 units in a major. Courses should be selected to meet the lower-division major preparation requirements at your intended transfer university—these specific requirements can be found at www.assist.org for 4-year public institutions in California. Please see a counselor for advisement to ensure you are taking the best possible courses given your goal.

The department presents the following suggested model program for this major. The courses listed below may or may not be appropriate depending on your specific goal. Please see a counselor for advisement for transfer to any 4-year institution.

### General Education 30 Units

#### Core Courses (21-23 units)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJ 1</td>
<td>Introduction to Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td>CJ 2</td>
<td>Criminal Law</td>
<td>3</td>
</tr>
<tr>
<td>CJ 3</td>
<td>Criminal Evidence</td>
<td>3</td>
</tr>
<tr>
<td>CJ 5</td>
<td>Police in the Community</td>
<td>3</td>
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<tr>
<td>CJ 19</td>
<td>Introduction to Corrections</td>
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<tr>
<td>CJ 20</td>
<td>Criminal Behavior</td>
<td>3</td>
</tr>
<tr>
<td>MATH 12</td>
<td>Elementary Statistics</td>
<td>5</td>
</tr>
<tr>
<td>or</td>
<td>MATH 12H Honors Elementary Statistics</td>
<td>5</td>
</tr>
<tr>
<td>or</td>
<td>BUS 9 Business Statistics</td>
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#### Approved Electives (3-7 Units)

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<th>Course Title</th>
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<tbody>
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<td>CJ 4</td>
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<tr>
<td>CJ 6</td>
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<tr>
<td>CJ 9</td>
<td>Juvenile Procedures</td>
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<tr>
<td>CJ 10</td>
<td>Forensic Investigation</td>
<td>4</td>
</tr>
<tr>
<td>CJ 12</td>
<td>Contemporary Issues in the Justice System</td>
<td>3</td>
</tr>
<tr>
<td>CJ 41</td>
<td>Narcotics Identification and Enforcement</td>
<td>3</td>
</tr>
<tr>
<td>CJ 111</td>
<td>Self Defense for Law Enforcement</td>
<td>3</td>
</tr>
<tr>
<td>CJ 155D</td>
<td>Law Enforcement Skills and Knowledge Modules</td>
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<tr>
<td>FT 150</td>
<td>Career Planning for Public Safety</td>
<td>3</td>
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<tr>
<td>FT 183</td>
<td>Emergency Medical Technician-B</td>
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<tr>
<td>FT 183L</td>
<td>Emergency Medical Technician Lab</td>
<td>1-3</td>
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<td>COMM 1</td>
<td>Public Speaking</td>
<td>3</td>
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<td>or</td>
<td>COMM 1H Honors Public Speaking</td>
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<tr>
<td>COMM 2</td>
<td>Group Discussion</td>
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<tr>
<td>COMM 6</td>
<td>Listening</td>
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<tr>
<td>COMM 7</td>
<td>Interpersonal Communication</td>
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<tr>
<td>COMM 12</td>
<td>Intercultural Communication</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 6</td>
<td>Introduction to Social Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SOC 1</td>
<td>Introduction to Sociology: Understanding Society</td>
<td>3</td>
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<tr>
<td>or</td>
<td>SOC 1H Honors Introduction to Sociology: Understanding Society</td>
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</tbody>
</table>

**Total Units** 60

### Criminal Justice–Law Enforcement Option A.A. Degree

#### Program Description

The Criminal Justice Program is designed to provide students with the basic theoretical knowledge, that will prepare them for career opportunities in pre-law, law enforcement, or corrections. The program develops a high level of academic, personal, and professional competence demanded in a wide range of agencies. The Criminal Justice Program is designed to provide students with the basic theoretical knowledge, that will prepare them for career opportunities in pre-law, law enforcement, or corrections. The program develops a high level of academic, personal, and professional competence 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.assist.org. Please see a counselor for advisement for transfer to any four-year institution.

#### A.A. General Education 30 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>CJ 1</td>
<td>Introduction to Criminal Justice</td>
<td>3</td>
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<tr>
<td>CJ 2</td>
<td>Criminal Law</td>
<td>3</td>
</tr>
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<td>Criminal Evidence</td>
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</tr>
<tr>
<td>CJ 5</td>
<td>Police in the Community</td>
<td>3</td>
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<td>CJ 6</td>
<td>Criminal Investigation</td>
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</tr>
<tr>
<td>MATH 12</td>
<td>Elementary Statistics</td>
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<td>or</td>
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<td>3</td>
</tr>
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#### Approved Electives (3-7 Units)

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<td>CJ 4</td>
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<td>Criminal Justice Written Communications</td>
<td>3</td>
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<tr>
<td>CJ 9</td>
<td>Juvenile Procedures</td>
<td>3</td>
</tr>
<tr>
<td>CJ 12</td>
<td>Contemporary Issues in the Justice System</td>
<td>3</td>
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<tr>
<td>CJ 20</td>
<td>Criminal Behavior</td>
<td>3</td>
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<tr>
<td>CJ 41</td>
<td>Narcotics Identification and Enforcement</td>
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<tr>
<td>CJ 10</td>
<td>Forensic Investigation</td>
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<td>CJ 111</td>
<td>Self Defense for Law Enforcement</td>
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<tr>
<td>CJ 155D</td>
<td>Law Enforcement Skills and Knowledge Modules</td>
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<tr>
<td>FT 150</td>
<td>Career Planning for Public Safety</td>
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<tr>
<td>FT 183</td>
<td>Emergency Medical Technician-B</td>
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<td>FT 183L</td>
<td>Emergency Medical Technician Lab</td>
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<tr>
<td>COMM 1</td>
<td>Public Speaking</td>
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<tr>
<td>or</td>
<td>COMM 1H Honors Public Speaking</td>
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</tbody>
</table>
Criminal Justice–Law Enforcement Option A.S. Degree

Program Description

The Criminal Justice Program is designed to provide students with the basic theoretical knowledge, that will prepare them for career opportunities in pre-law, law enforcement, or corrections. The program develops a high level of academic, personal, and professional competence demanded in a wide range of agencies.

Program Student Learning Outcomes: AA/AS Degree: Upon successful completion of all program requirements, graduates will be able to:

1. Identify minimum qualifications and the needed skills for successful employment in criminal justice related jobs.
2. Analyze and explain the historical development of the American Criminal Justice System and its components including law enforcement, courts and corrections.
3. Explain the historical development and philosophy of criminal law.
4. Apply principles of the US Constitution and integrate constitutional provisions with the fundamentals of law.
5. Demonstrate a working knowledge of the rules of evidence, the various kinds of evidence, and the admissibility of evidence.
6. Discuss criminal procedures from the point of arrest to release and the options available in the process.
7. Evaluate the ethical and legal issues encountered by professionals involved in the Criminal Justice system.

A.S. General Education 21 Units

Core Courses (19 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>CJ 1</td>
<td>Introduction to Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td>CJ 2</td>
<td>Criminal Law</td>
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<td>Criminal Courts and Procedures</td>
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<td>CJ 5</td>
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<tr>
<td>CJ 6</td>
<td>Criminal Investigation</td>
<td>4</td>
</tr>
<tr>
<td>CJ 7</td>
<td>Criminal Justice Written Communications</td>
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</table>

Approved Electives (11 Units) Units

<table>
<thead>
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<th>Course</th>
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</thead>
<tbody>
<tr>
<td>CJ 3</td>
<td>Criminal Evidence</td>
<td>3</td>
</tr>
<tr>
<td>CJ 9</td>
<td>Juvenile Procedures</td>
<td>3</td>
</tr>
<tr>
<td>CJ 10</td>
<td>** Forensic Investigation</td>
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<td>CJ 111</td>
<td>** Self Defense for Law Enforcement</td>
<td>3</td>
</tr>
<tr>
<td>CJ 155D</td>
<td>** Law Enforcement Skills and Knowledge Modules</td>
<td>4</td>
</tr>
</tbody>
</table>

Electives: (Any Course numbered 1-99) 2-8 Units

Total Units 60

Fire Technology

Fire Technology A.A. Degree

Program Description

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 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 achievement as a prerequisite for promotion. High School preparation: Completion of algebra, chemistry, and physics is highly recommended.

A.A. General Education 30 Units

Core Courses (18 units)

<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>
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<tr>
<td>FT 2</td>
<td>Fire Prevention Technology</td>
<td>3</td>
</tr>
<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>
<td>3</td>
</tr>
<tr>
<td>FT 5</td>
<td>Fire Behavior and Combustion</td>
<td>3</td>
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<tr>
<td>FT 6ES</td>
<td>Principles of Emergency Services Safety and Survival</td>
<td>3</td>
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Approved Electives (6 Units) Units

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<thead>
<tr>
<th>Course</th>
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<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>
</tr>
<tr>
<td>FT 9</td>
<td>Fire Investigation</td>
<td>3</td>
</tr>
</tbody>
</table>

**These courses are not transferable to four-year universities.**
5. Describe the tools, equipment and types of fire apparatus used to extinguish fires.

4. Explain the various phases of fire behavior in buildings. Explain how the behavior of fire in an open environment differs from a fire in an enclosed environment. Describe fire extinguishing agents, how they work and the advantages and disadvantages of each.

3. Demonstrate knowledge of the laws, regulations, codes and standards impacting fire department operations. Explain the application of fire codes, and other regulatory codes used by fire departments to control fire and occupant safety in buildings.

2. Demonstrate the ability to analyze, appraise, evaluate fire incidents; Explain size-up, the incident command system, the 10 standard fire orders, the 18 situations that shout watch out and identify the common factors associated with injuries and deaths in the line of duty.

1. Identify minimum qualifications and the needed entry skills for all fire service related jobs.

6. Explain the operation of fire detection, fire suppression and alarm systems used to extinguish and provide notification of fire.

A.S. General Education 21 Units

Core Courses (18 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FT 150</td>
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<tr>
<td>FT 150</td>
<td>or Career Planning for Public Safety</td>
<td>3</td>
</tr>
<tr>
<td>FT 155D</td>
<td>Fire Technology Skills and Knowledge Modules</td>
<td>4</td>
</tr>
<tr>
<td>CJ 7</td>
<td>Criminal Justice Written Communications</td>
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<tr>
<td>COMM 1</td>
<td>Public Speaking</td>
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<tr>
<td>or COMM 1H</td>
<td>Honors Public Speaking</td>
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<td>COMM 2</td>
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<tr>
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<td>Listening</td>
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<td>Interpersonal Communication</td>
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<td>COMM 12</td>
<td>Intercultural Communication</td>
<td>3</td>
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<tr>
<td>PHILO 10</td>
<td>Ethics</td>
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<tr>
<td>or PHILO 10H</td>
<td>Honors Ethics</td>
<td>3</td>
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<tr>
<td>PHILO 49</td>
<td>Introduction to Critical Thinking</td>
<td>3</td>
</tr>
<tr>
<td>or PS 1</td>
<td>Introduction to Government</td>
<td>3</td>
</tr>
<tr>
<td>or PS 1H</td>
<td>Honors Introduction to Government</td>
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<tr>
<td>PSYCH 1</td>
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<td>Honors General Psychology</td>
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<tr>
<td>PSYCH 6</td>
<td>Introduction to Social Psychology</td>
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<td>or SOC 1</td>
<td>Introduction to Sociology: Understanding Society</td>
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<tr>
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<td>Honors Introduction to Sociology: Understanding Society</td>
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<tr>
<td>or SOC 2</td>
<td>Contemporary Social Problems</td>
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<tr>
<td>or SOC 2H</td>
<td>Honors Contemporary Social Problems</td>
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<tr>
<td>SOC 3</td>
<td>Introduction to Race and Ethnicity</td>
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<td>SOC 8</td>
<td>Introduction to Latina/o Studies</td>
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Electives: (Any Course numbered 1-199) 6 Units

Total Units 60

Fire Technology A.S. Degree

Program Learning Outcomes:

Upon successful completion of the required courses for graduation/certification in fire program the student will be able to:

1. Identify minimum qualifications and the needed entry skills for all the fire service related jobs.

2. Demonstrate the ability to analyze, appraise, evaluate fire incidents; Explain size-up, the incident command system, the 10 standard fire orders, the 18 situations that shout watch out and identify the common factors associated with injuries and deaths in the line of duty.

3. Demonstrate knowledge of the laws, regulations, codes and standards impacting fire department operations. Explain the application of fire codes, and other regulatory codes used by fire departments to control fire and occupant safety in buildings.

4. Explain the various phases of fire behavior in buildings. Explain how the behavior of fire in an open environment differs from a fire in an enclosed environment. Describe fire extinguishing agents, how they work and the advantages and disadvantages of each.

5. Describe the tools, equipment and types of fire apparatus used to extinguish fires.

A.S. General Education 21 Units

Core Courses (18 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FT 1</td>
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<td>Building Construction for Fire Protection</td>
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<tr>
<td>FT 5</td>
<td>Fire Behavior and Combustion</td>
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<tr>
<td>FT 6ES</td>
<td>Principles of Emergency Services Safety and Survival</td>
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Approved Electives (12 Units) Units

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<td>FT 7</td>
<td>Introduction to Hazardous Materials</td>
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<td>Wildlands Fire Control</td>
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<td>FT 150</td>
<td>Career Planning for Public Safety</td>
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<tr>
<td>or CJ 150</td>
<td>Career Planning for Public Safety</td>
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<td>FT 155D</td>
<td>Fire Technology Skills and Knowledge Modules</td>
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<td>FT 175</td>
<td>Hazardous Materials-First Responder Operations</td>
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<td>FT 188</td>
<td>Advanced EMS: Preparing for Paramedic Training</td>
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<tr>
<td>CJ 7</td>
<td>Criminal EMS: Preparing for Paramedic Training</td>
<td>3</td>
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<tr>
<td>COMM 1</td>
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<td>Honors Contemporary Social Problems</td>
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</tr>
<tr>
<td>or SOC 3</td>
<td>Introduction to Race and Ethnicity</td>
<td>3</td>
</tr>
<tr>
<td>or SOC 8</td>
<td>Introduction to Latina/o Studies</td>
<td>3</td>
</tr>
</tbody>
</table>

Electives: (Any Course numbered 1-199) 9 Units

Total Units 60
Fire Service Management A.S. Degree

Program Description:
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 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.

Program Learning Outcomes for those seeking an AS Degree in Fire Service Management are to acquire the skills and knowledge necessary to function as a Fire Officer, as established by standardized curriculum of the Office of the State Fire Marshal, to include:

1. Utilize fire service leadership techniques to manage personnel, train staff, perform strategic planning, organize operations and coordinate emergency or non-emergency activities.
2. Demonstrate the ability to function independently and as part of an effective management team as appropriate in all situations.
3. Apply effective verbal and written communication skills, critical thinking and decision-making skills commensurate with a defined level of responsibility.
4. Apply fire service management techniques in the development of policies and procedures, protocols, budgets, and information management in day-to-day operations.
5. Employ principles of strategy and tactics to managing fire operations utilizing proven safety and risk management principles.
6. Interpret ethical and legal issues that impact fire service.
7. Apply a solid foundation of knowledge and skills to assume leadership roles in fire service command and administrative duties.

A.S. General Education 21 Units

Core Courses (22.5 units)

<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>2.5</td>
</tr>
<tr>
<td>FT 161</td>
<td>Fire Command 1A</td>
<td>2.5</td>
</tr>
<tr>
<td>FT 162</td>
<td>Fire Command 1B</td>
<td>2.5</td>
</tr>
<tr>
<td>FT 163</td>
<td>Fire Prevention 1A</td>
<td>2.5</td>
</tr>
<tr>
<td>FT 164</td>
<td>Fire Prevention 1B</td>
<td>2.5</td>
</tr>
<tr>
<td>FT 165</td>
<td>Fire Investigation 1A</td>
<td>2.5</td>
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<tr>
<td>FT 166</td>
<td>Fire Investigation 1B</td>
<td>2.5</td>
</tr>
<tr>
<td>FT 167</td>
<td>Fire Instructor 1A</td>
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<tr>
<td>FT 168</td>
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Approved Electives (9-12 Units)

<table>
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<tr>
<th>Course</th>
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<tr>
<td>ACCT 1A</td>
<td>Financial Accounting</td>
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<tr>
<td>ACCT 158</td>
<td>Introduction to Government and Not-for-Profit Accounting</td>
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<tr>
<td>BUS 67</td>
<td>Human Relations and Resources</td>
<td>3</td>
</tr>
<tr>
<td>CABB 156</td>
<td>Writing for the Workplace</td>
<td>3</td>
</tr>
<tr>
<td>COMM 2</td>
<td>Group Discussion</td>
<td>3</td>
</tr>
<tr>
<td>COMM 4</td>
<td>Argumentation and Persuasion</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 Training-PC 832 Laws of Arrest</td>
<td>2.5</td>
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<tr>
<td>FT 155D</td>
<td>Fire Technology Skills and Knowledge Modules</td>
<td>4</td>
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<td>HS 12</td>
<td>Stress Management</td>
<td>3</td>
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<td>SOC 2</td>
<td>Contemporary Social Problems</td>
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<tr>
<td>or</td>
<td></td>
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<tr>
<td>SOC 2H</td>
<td>Honors Contemporary Social Problems</td>
<td>3</td>
</tr>
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</table>

Electives:
(Any Course numbered 1-199) 4.5-7.5

Total Units 60

Fire Service Management Certificate of Achievement

Program Learning Outcomes:

1. Demonstrate critical thinking skills and decision making abilities for managing an emergency.
2. Identify emergency planning tools related to incident mitigation.
3. Apply elements of the Incident Command System to all major incidents.
4. Describe in writing and verbally, major fire hazards.
5. Analyze the impact of fire prevention.
6. Differentiate between leaders and managers.
7. Perform teaching demonstrations for fire vocational training.
8. Evaluate peer instructors.

Core Courses (22.5 units)

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
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</tr>
<tr>
<td>FT 163</td>
<td>Fire Prevention 1A</td>
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<tr>
<td>FT 164</td>
<td>Fire Prevention 1B</td>
<td>2.5</td>
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<tr>
<td>FT 165</td>
<td>Fire Investigation 1A</td>
<td>2.5</td>
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<tr>
<td>FT 166</td>
<td>Fire Investigation 1B</td>
<td>2.5</td>
</tr>
<tr>
<td>FT 167</td>
<td>Fire Instructor 1A</td>
<td>2.5</td>
</tr>
<tr>
<td>FT 168</td>
<td>Fire Instructor 1B</td>
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Other Required Courses:

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<tr>
<td>ENGL 100</td>
<td>Elements of Writing</td>
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<tr>
<td>or</td>
<td>ENGL 1A/1AH/1AMC/1AMCH</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>CABT 157 Business and Technical Writing</td>
<td>3</td>
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</table>

Total Units 29.5

Emergency Medical Technician Skills Certificate

Program Learning Outcomes:

1. Demonstrate thorough patient assessments used in emergency medical situations
2. Treat medical and trauma patients involved in emergency situations
3. Demonstrate life saving care for patients in cardiac arrest and extremis
4. Analyze the requirements for advanced EMT training

Required Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FT 99SL</td>
<td>Fire Technology Service Learning</td>
<td>0.5-3</td>
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<tr>
<td>FT 183</td>
<td>Emergency Medical Technician-B</td>
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<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 Units 11.5-16
Criminal Justice Courses:

**CJ 1  Introduction to Criminal Justice**  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Examines the 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; UC. C-ID AJ 110*

**CJ 2  Criminal Law**  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
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; UC. C-ID AJ 120*

**CJ 3  Criminal Evidence**  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Examines the 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. May be offered in a Distance Learning Format.  
*Transfer Credit: Transfers to CSU. C-ID AJ 124*

**CJ 4  Criminal Courts and Procedures**  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Reviews 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. C-ID AJ 122*

**CJ 5  Police in the Community**  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Studies the role of the police in a multicultural society 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.  
Repeatability: May be taken 1 time.  
Examines the 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. C-ID AJ 140*

**CJ 7  Criminal Justice Written Communications**  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
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.  
*Transfer Credit: Transfers to CSU.*

**CJ 9  Juvenile Procedures**  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Presents 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 offered in a Distance Learning Format.  
*Transfer Credit: Transfers to CSU. C-ID AJ 220*

**CJ 10  Forensic Investigation**  
4 units; 4 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.  
Repeatability: May be taken 1 time.  
Teaches the skills necessary to recognize, preserve, document and lawfully collect evidence at a crime scene. May be offered 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.  
Repeatability: May be taken 1 time.  
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 1 time.  
Provides an overview of the history and trends of adult and juvenile corrections, including probation and parole. Focuses 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 offered 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.  
Repeatability: May be taken 1 time.  
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. May be offered in a Distance Learning Format.  
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.  
Repeatability: May be taken 1 time.  
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.  
Transfer Credit: Transfers to CSU.

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 1 time.  
Developes defensive skills including control holds, takedown, ground defense, weapons retention, legal and ethical use of force principles, and basic self defense concepts.

CJ 150  Career Planning for Public Safety  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Prepares public safety candidates for the testing and hiring process for entry-level public safety positions. CJ 150 and FT 150 are cross-listed courses. Students may enroll in either course for credit, but not both.

CJ 155D  Law Enforcement Skills and Knowledge Modules  
0.05 - 15 units; 0.15 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 taken 1 time.  
Teaches new or update existing skills and knowledge of law enforcement training. Modules of courses may be combined for variable units. May be taken pass/no pass grading only. Four units earned may count toward the associate degree for Criminal Justice. Open entry/open exit.

CJ 170A  Law Enforcement Training - PC 832 Laws of Arrest  
2.5 units; 2.5 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Fulfills the requirements of Section 832 of the Penal Code for limited function peace officers as mandated by the California Commission on Peace Officers Standards and Training (POST). Involves stressful physical activities of arrest control techniques that necessitates the student have no medical impairments.

CJ 170B  Law Enforcement Training - P.C. 832 Firearms  
1.5 units; 1.5 hours Lecture  
Prerequisite: CJ 170A Satisfactory completion of 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 1 time.  
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 1 time.  
A continuation of basic law enforcement techniques for the prospective 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 1 time.  
The Modular II training is a continuation of basic law enforcement training for the prospective Reserve Officer and Peace Officer. At the conclusion 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 190AZ  Special Topics in Criminal Justice
0.5 - 12 units; 0.5 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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.

Fire Technology Courses

FT 1  Fire Protection Organization
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Examines fundamentals of fire department organization, management, and resources, emphasizing the use of those resources to control various 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.
Repeatability: May be taken 1 time.
Examines the organization and function of fire prevention, including inspections; surveying and mapping procedures; recognition of fire and life hazards; and public education aspects of fire prevention. 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.
Repeatability: May be taken 1 time.
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.
Repeatability: May be taken 1 time.
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.
Repeatability: May be taken 1 time.
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 6ES  Principles of Emergency Services Safety and Survival
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.
Introduces the basic principles and history related to the national firefighter life safety initiatives, focusing on the need for cultural and behavioral change throughout the emergency services. 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.
Repeatability: May be taken 1 time.
Examines 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.
Repeatability: May be taken 1 time.
Provides the firefighter or fire protection technology major with a fundamental knowledge of the factors affecting wildland fire prevention, fire behavior, and control techniques.
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 1 time.
Examines 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. May be offered in a Distance Learning Format.
Transfer Credit: Transfers to CSU.
FT 140  Emergency Responder, Advanced First Aid for Professionals  
1 unit; 1 hour Lecture  
Recommended Preparation: Cardiopulmonary Resuscitation (CPR). Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Meets the educational requirements for certification of advanced first aid as specified in the training standards of California Code of Regulations, Title 22, Division 9, Chapter 1.5. Prepares individuals to render first aid with emphasis made on field application, practices and techniques vital to render immediate care for injury or sudden illness. Does not include CPR. Recommended for lifeguards, peace officers and camp staff personnel.

FT 141  Certified First Responder for Professionals  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Provides Emergency Responder and CPR for the Professional Rescuer certification through American Safety and Health Institute and fulfills California Code of Regulations, Title 22 requirements. Provides the training and skills in emergency care needed for peace officers, firefighters, emergency medical technicians, camp medical staff and others. Meets the CPR prerequisite and Recommended Preparation for admission to the EMT program (FT 183).

FT 150  Career Planning for Public Safety  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Prepares public safety candidates for the testing and hiring process for entry-level public safety positions. CJ 150 and FT 150 are cross listed courses. Students may enroll in either course for credit, but not both.

FT 151  Fire Apparatus Driver 1A  
2.5 units; 2.5 hours Lecture  
Prerequisite: FT 1 or employment as a paid or volunteer firefighter.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Introduces requirements for California State Fire Service Training and Education System Certified Fire Apparatus Driver Operator including pump testing, emergency driving, and apparatus maintenance.

FT 152  Driver Operator 1B  
2.5 units; 2.5 hours Lecture  
Prerequisite: FT 151.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Examines water systems, hydraulic calculations, pumping operations, and fire stream practices for California State Fire Service Training and Education System Certified Fire Apparatus Driver Operator.

FT 153  Essentials of Firefighter Safety  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Examines the National Fire Protection Agency (NFPA) Standard 1500 including firefighter safety practices and new types of protective clothing and equipment.

FT 155D  Fire Technology Skills and Knowledge Modules  
0.05 - 15 units; 0.15 hour Laboratory  
Prerequisite: Successful completion of or current enrollment in an agency approved Fire Academy.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Teaches new or updates existing skills and knowledge of fire technology. Modules may be combined for variable units. Pass/no pass grading only. Open entry/Open exit.

FT 160  Fire Management I  
2.5 units; 2.5 hours Lecture  
Prerequisite: FT 162.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Meets California State Academy requirements for Fire Management I by emphasizing the company officer’s role in supervising, planning, and reviewing fire department organizations.

FT 161  Fire Command 1A  
2.5 units; 2.5 hours Lecture  
Prerequisite: FT 1 and/or FT 3 and/or FT 4 and/or FT 5 and/or FT 181 or completion of Firefighter 1 or equivalent.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
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  
2.5 units; 2.5 hours Lecture  
Prerequisite: FT 161.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
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  
2.5 units; 2.5 hours Lecture  
Prerequisite: FT 2 and FT 3 or completion of Firefighter 1 or equivalent.  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
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
2.5 units; 2.5 hours Lecture
Prerequisite: FT 163.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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
2.5 units; 2.5 hours Lecture
Prerequisite: FT 161 or completion of Firefighter 1 (Basic Fire Academy) or equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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
2.5 units; 2.5 hours Lecture
Prerequisite: FT 165.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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
2.5 units; 2.5 hours Lecture
Prerequisite: FT 161.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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
2.5 units; 2.5 hours Lecture
Prerequisite: FT 167.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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
2.5 units; 2.5 hours Lecture
Prerequisite: FT 189 or Firefighter 1 or equivalent.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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
0.5 unit; 0.5 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Prepares student to carry out the initial response to a hazardous materials emergency.

FT 176 Confined Space I
0.25 unit; 0.25 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Provides an overview of OSHA regulations as well as ANSI standards relative to confined space rescue.

FT 178 CPR for Health Providers
0.5 unit; 0.5 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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.
Repeatability: May be taken 1 time.
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
1.5 units; 1.5 hours Lecture
Prerequisite: FT 180 (State Fire Marshall Course # ISC 200).
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Reviews and further explores information designed to meet the needs of command officers managing complex emergency incidents.

FT 182 Advanced Incident Command System 400
1.5 units; 1.5 hours Lecture
Prerequisite: FT 181 (State Fire Marshall Course # ICS 200.)
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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 1 time.
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 1 time.
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
1.5 units; 1.5 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 taken 1 time.
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 184S  EMT-B Refresher Skills Proficiency Evaluation
0.5 - 3 units; 0.5 hour Lecture
Prerequisite: Emergency Medical Technician-Basic certification. FT 184
Corequisite: FT 184 or.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Meets the State of California requirements for skills verification for renewal of Emergency Medical Technician-Basic certification. Consists of scenario and skills practice and verification.

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 taken 1 time.
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
0.5 unit; 0.5 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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 1 time.
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
2.25 units; 6.75 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 public safety program application.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Teaches basic wildland firefighting skills, laws, and regulations including safe use of hoses, tools, equipment, and ladders.

FT 190AZ  Special Topics in Fire Technology
0.5 - 12 units; 0.5 hour Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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.

RADIONIC TECHNOLOGY
Health, Athletics, Wellness, and Kinesiology Division

Ian Haslam, Division Dean
Division Office, Room 1102
Ann Smeltzer, Program Chair, (831) 479-5056
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 786-4734
Call (831) 479-6461 for more information
http://www.cabrillo.edu/programs
Radiologic Technology A.S. Degree

Program Description

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, image 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 Public 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 availability, 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 at the Cabrillo College web site. Radiologic Technology program applications are available at www.cabrillo.edu/academics/radtech. Two official transcripts must be sent with the program application. After reading the appropriate sections of the Cabrillo College Catalog, please contact the RT office at (831) 479-6461 for specific questions regarding the application. Due to the course load, it is advisable to complete as many 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. There are well-compensated job opportunities in all modalities.

Prerequisites

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<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>PHYS 10 Introduction to Physics</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 1 General Psychology</td>
<td>3</td>
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<tr>
<td>or PSYCH 1H Honors General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>MA 70 Medical Terminology</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1A/1AH/1AMG/1AMCH</td>
<td>3</td>
</tr>
</tbody>
</table>

If you have passed a prerequisite course with an A, B, or C, your GPA will not improve with repetition of that class.

*A course such as CHEM 30A or CHEM 32 is the prerequisite for BIO 5; 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 prerequisite and published curriculum courses must be completed with a grade of "C" or better with the exception of MA 70, which requires a minimum grade of "B" or better. These prerequisites may also be used to satisfy appropriate general education areas.

Elective Not Required for Radiologic Technology Degree

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALH 101 *A Review of Anatomy and Physiology</td>
<td>2</td>
</tr>
</tbody>
</table>

*Usually offered summer sessions highly recommended immediately prior to fall program entrance.

General Education Courses

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.S. General Education

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.

Core Courses (60.75 Units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>RT 50 Introduction to Radiologic Technology/Patient Care</td>
<td>2</td>
</tr>
<tr>
<td>RT 50L R.T. Patient Care Laboratory</td>
<td>0.25</td>
</tr>
<tr>
<td>RT 51 Radiographic Positioning I</td>
<td>2</td>
</tr>
<tr>
<td>RT 51L Positioning Laboratory I</td>
<td>1</td>
</tr>
<tr>
<td>RT 52 Radiation Physics</td>
<td>2</td>
</tr>
<tr>
<td>RT 53A Introduction to Radiologic Technology Laboratory/ Clinic I</td>
<td>5.5</td>
</tr>
<tr>
<td>RT 53C Radiologic Technology Laboratory/ Clinic III</td>
<td>5.5</td>
</tr>
<tr>
<td>RT 53D Radiologic Technology Laboratory/ Clinic IV</td>
<td>8</td>
</tr>
<tr>
<td>RT 60 Principles of Radiographic Imaging</td>
<td>2</td>
</tr>
<tr>
<td>RT 60L Applied Principles of Radiographic Imaging Lab</td>
<td>0.5</td>
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<tr>
<td>RT 61 Radiographic Positioning II</td>
<td>2</td>
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<tr>
<td>RT 61L Radiographic Positioning Lab II</td>
<td>1</td>
</tr>
<tr>
<td>RT 62 Principles of Radiation Protection</td>
<td>2</td>
</tr>
<tr>
<td>RT 63 Advanced Positioning Lab/Clinic IV</td>
<td>8</td>
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<tr>
<td>RT 65 Advanced Positioning Lab/Clinic VII</td>
<td>8</td>
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<tr>
<td>RT 70 Principles of Fluoroscopy</td>
<td>1</td>
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<tr>
<td>RT 70L Applied Principles of Fluoroscopy</td>
<td>0.5</td>
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<tr>
<td>RT 71 Radiographic Positioning III</td>
<td>2</td>
</tr>
<tr>
<td>RT 71L Positioning Laboratory III</td>
<td>1</td>
</tr>
<tr>
<td>RT 72 Advanced Diagnostic Imaging Research</td>
<td>2</td>
</tr>
<tr>
<td>RT 73 Medical Imaging Pathology</td>
<td>1</td>
</tr>
<tr>
<td>RT 82 Advanced Diagnostic Imaging</td>
<td>1</td>
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<tr>
<td>RT 83 Transition to the Professional Role</td>
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<tr>
<td>RT 83L Advanced Patient Care: Venipuncture for Radiographers</td>
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</table>

Electives-Magnetic Resonance Imaging

<table>
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<tr>
<th>Course</th>
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<tr>
<td>RT 189A Sectional Anatomy</td>
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<tr>
<td>RT 190 Magnetic Resonance Imaging (MRI) Physics</td>
<td>3</td>
</tr>
<tr>
<td>RT 191 Magnetic Resonance Imaging and Procedures</td>
<td>2</td>
</tr>
<tr>
<td>RT 191L Applied MRI Protocol and Procedures</td>
<td>0.5</td>
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<tr>
<td>RT 192 Magnetic Resonance Imaging Lab/Clinic</td>
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<tr>
<td>RT 193 Advanced Magnetic Resonance Imaging Lab/Clinic</td>
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Electives-Mammography

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<tr>
<th>Course</th>
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<tr>
<td>RT 185</td>
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<tr>
<td>RT 185C</td>
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</tr>
<tr>
<td>RT 185L</td>
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Elective-Sectional Anatomy

<table>
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<th>Course</th>
<th>Units</th>
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<tr>
<td>RT 189A</td>
<td>1</td>
</tr>
<tr>
<td>RT 189AL</td>
<td>0.5</td>
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</table>

Skills Certificate: Venipuncture

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>RT 175</td>
<td>0.5</td>
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</tbody>
</table>

Mathematics Competency Requirement

The A.S. 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.

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.

Clinical Compliance Requirements

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 requirement and to provide documentation before enrolling in the program. Students are also required to complete criminal background checks and may be required to undergo fingerprinting.

Radiologic Technology Courses

RT 50 Introduction to Radiologic Technology/Patient Care

2 units; 2 hours Lecture
Prerequisite: Acceptance to the Cabrillo College Radiologic Technology Program.
Repeatability: May be taken 1 time.

Provides the concepts of optimal patient care, including: physical and psychological needs of the patient and family, routine and emergency patient care, infection control, patient education, ethics and law.
Transfer Credit: Transfers to CSU.

RT 50L R.T. Patient Care Laboratory

0.25 unit; 0.75 hour Laboratory
Prerequisite: Acceptance to the Cabrillo College Radiologic Technology Program.
Corequisite: RT 50.
Repeatability: May be taken 1 time.

Provides practical application of the fundamentals of patient care in radiologic technology, to include 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: Acceptance to the Cabrillo College Radiologic Technology Program.
Corequisite: RT 51L.
Repeatability: May be taken 1 time.

Presents routine and non-routine radiographic positioning and related anatomy of the chest, abdomen, upper and lower limbs, including basic radiographic terminology and topographic landmarks related to positioning. Related pathologies, their radiographic appearances and relative technical adjustments are included.
Transfer Credit: Transfers to CSU.

RT 51L Positioning Laboratory I

1 unit; 3 hours Laboratory
Prerequisite: Acceptance to the Cabrillo College Radiologic Technology Program.
Corequisite: RT 51.
Repeatability: May be taken 1 time.

Applied radiographic positioning principles, with focus on radiographic examination procedures of the chest, abdomen, upper and lower extremities. Structured, individual and group instruction is accompanied by laboratory demonstration by the instructor.
Transfer Credit: Transfers to CSU.

RT 52 Radiation Physics

2 units; 2 hours Lecture
Prerequisite: Acceptance to the Radiologic Technology Program.
Repeatability: May be taken 1 time.

Provides a basic understanding of the physics underlying the properties and production of x-rays and interaction with matter. Fundamentals include atomic structure, principles of magnetism and current, electrical delivery, and x-ray tube design.
Transfer Credit: Transfers to CSU.

RT 53A Introduction to Radiologic Technology Laboratory/ Clinic I

5.5 units; 16.5 hours Laboratory
Prerequisite: Acceptance to the Cabrillo College Radiologic Technology Program.
Repeatability: May be taken 1 time.

Applies classroom theory (RT 50,51) and laboratory practice (RT 50L,51L) in the clinical setting under direct supervision. The student optimally positions patients, while using safe patient care and radiation protection procedures and learns imaging department organization and procedures.
Transfer Credit: Transfers to CSU.
RT 53C  Radiologic Technology Laboratory/ Clinic III
5.5 units; 16.5 hours Laboratory
Prerequisite: RT 53B.
Repeatability: May be taken 1 time.
Provides continued clinical application of classroom theory (RT51, 61) and laboratory practice (RT51L, 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.
Repeatability: May be taken 1 time.
Covers clinical application of classroom theory (RT 51 and 61) and laboratory practice (RT 51L and 61L) in clinical education facilities by assignment, under direct supervision. The student 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.
Repeatability: May be taken 1 time.
Prepares imaging equipment, technique formulation and factors as they are currently used in radiographic medical imaging. Proper image density, contrast, and resolution using film/screen and digital equipment, as well as maintenance of ongoing QA/QC procedures are emphasized.
Transfer Credit: Transfers to CSU.

RT 60L  Applied Principles of Radiographic Imaging Lab
0.5 unit; 1.5 hours Laboratory
Prerequisite: RT 52
Corequisite: RT 60.
Repeatability: May be taken 1 time.
Applies theory of RT 60 in the laboratory setting to practically apply the effects of technique selection, collimation, distance, grid use, air gap technique and the use of film/screen, computed radiography, digital radiography, and darkroom procedures.
Transfer Credit: Transfers to CSU.

RT 61  Radiographic Positioning II
2 units; 2 hours Lecture
Prerequisite: RT 51
Corequisite: RT 61L.
Repeatability: May be taken 1 time.
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.
Repeatability: May be taken 1 time.
Positioning procedures for both routine and optional examinations are presented, according to competency-based outcomes criteria related to RT 61 concurrent instruction.
Transfer Credit: Transfers to CSU.

RT 62  Principles of Radiation Protection
2 units; 2 hours Lecture
Prerequisite: RT 52.
Repeatability: May be taken 1 time.
Teaches radiation protection for the patient/public and the technologist, and radiobiology with emphasis on radiation dose and biologic effects. Studies state and federal laws which govern and control the use of ionizing radiation and the manufacture and use of radiation equipment.
Transfer Credit: Transfers to CSU.

RT 63  Advanced Positioning Lab/Clinic IV
8 units; 24 hours Laboratory
Prerequisite: RT 53D.
Repeatability: May be taken 1 time.
Applies classroom theory (RT 51, 61, and 71) and laboratory practice (RT 51L, 61L, 71L) in clinical education facilities under indirect/direct supervision where appropriate, with participation 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: RT 64.
Repeatability: May be taken 1 time.
Applies classroom theory (RT 51, 61, and 71) and laboratory practice (RT 51L, 61L, 71L) in clinical education facilities under indirect/direct supervision as appropriate, with participation 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 or 2nd year Radiologic Technology Student.
Corequisite: RT 70L.
Repeatability: May be taken 1 time.
Provides an overview of the State of California Fluoroscopy regulations in preparation for the state certification exam.
Transfer Credit: Transfers to CSU.
RT 70L  Applied Principles of Fluoroscopy
0.5 unit; 1.5 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 1 time.
Teaches manipulation of mobile and stationary fluoroscopy equipment, QA/QC procedures, selection of parameters and accessories that are selected to minimize radiation dose and maximize image quality. 
 Transfer Credit: Transfers to CSU.

RT 71  Radiographic Positioning III
2 units; 2 hours Lecture
Prerequisite: RT 61
Corequisite: RT 71L.
Repeatability: May be taken 1 time.
Teaches Part III of the radiographic positioning course sequence including the cranium, facial bones, paranasal sinuses, pediatric radiography and legal aspects of elder and child abuse. 
 Transfer Credit: Transfers to CSU.

RT 71L  Positioning Laboratory III
1 unit; 3 hours Laboratory
Prerequisite: RT 61
Corequisite: RT 71.
Repeatability: May be taken 1 time.
Applies Part III of the radiographic positioning course sequence, including the cranium, facial bones, mandible with joints and paranasal sinuses. 
 Transfer Credit: Transfers to CSU.

RT 72  Advanced Diagnostic Imaging Research
2 units; 2 hours Lecture
Prerequisite: Acceptance to the Cabrillo College Radiologic Technology Program.
Repeatability: May be taken 1 time.
Introduces technically advanced imaging modalities including CT, MRI, mammography, bone densitometry, nuclear medicine, radiation therapy and others in order to assist in the development of skills in formal research and presentation. 
 Transfer Credit: Transfers to CSU.

RT 73  Medical Imaging Pathology
1 unit; 1 hour Lecture
Prerequisite: RT 61.
Repeatability: May be taken 1 time.
Surveys pathologies and etiological considerations with emphasis on radiographic appearance of disease and impact on exposure factor selection. 
 Transfer Credit: Transfers to CSU.

RT 82  Advanced Diagnostic Imaging
1 unit; 1 hour Lecture
Prerequisite: RT 72.
Repeatability: May be taken 1 time.
Presents advanced radiographic procedures to include advanced modalities of computerized tomography, angiography, ultrasonography, bone densitometry and interventional radiography.
 Transfer Credit: Transfers to CSU.

RT 83  Transition to the Professional Role
2 units; 2 hours Lecture
Prerequisite: Graduation from an accredited Radiation Technology program or 2nd year Radiation Technology student.
Repeatability: May be taken 1 time.
Provides a comprehensive review of patient care, radiographic procedures, radiation protection, image production and evaluation, equipment operation and maintenance and the State of California’s Health Code, Title XVII regarding fluoroscopic radiation laws and application/resume preparation. 
 Transfer Credit: Transfers to CSU.

RT 175  Advanced Patient Care: Venipuncture for Radiographers
0.5 unit; 0.5 hour Lecture and 0.5 hour Laboratory
Prerequisite: RT 61 or ARRT or CRT license and CPR/Healthcare provider certification.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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 184AZ  Special Topics in Radiologic Technology
1 - 3 units; 3 hours Laboratory
Prerequisite: Selection to the Radiologic Technology Program.
Repeatability: May be taken 1 time.
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 185  Principles of Mammography
2 units; 2 hours Lecture
Prerequisite: CRT or ARRT license or within one year of graduation from an accredited Radiologic Technology Program and CPR/Healthcare provider certification.
Corequisite: RT 185L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Studies the theory and practice of mammographic positioning, quality assurance/control, and imaging the anatomy and pathophysiology of the breast. Prepares the student in part for the state and national certification exams in mammography.
### RT 185C  **Principles of Mammography Lab/Clinic**
1 unit; 3 hours Laboratory
Prerequisite: CRT or ARRT license or 2nd year Radiologic Technology student and CPR/Healthcare provider certification.
Corequisite: RT 185 and RT 185L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Clinical application of classroom theory and laboratory skills (RT185 and RT185L) with 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: CRT or ARRT license or within one year of graduation from an accredited Radiologic Technology Program and CPR/Healthcare provider certification.
Corequisite: RT 185.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Provides the laboratory component to RT 185, to include: Breast positioning and imaging techniques, quality control/quality assurance and operation of digital and analog mammographic equipment for both image acquisition and processing.

### RT 189A  **Sectional Anatomy**
1 unit; 1 hour Lecture
Prerequisite: BIO 4.
Corequisite: RT 189AL.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Teaches sectional human anatomy for health care professionals. Emphasis on transverse, coronal, and sagittal planes as related to sonography, computerized tomography and magnetic resonance imaging. May be offered in a Distance-Learning Format.

### RT 189AL  **Sectional Anatomy Laboratory**
0.5 unit; 1.5 hours Laboratory
Corequisite: RT 189A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Applied sectional human anatomy laboratory with practical application of the content and theories of RT 189A. Presents case studies utilizing various imaging modalities. May be offered in a Distance-Learning Format.

### RT 190  **Magnetic Resonance Imaging (MRI) Physics**
3 units; 3 hours Lecture
Prerequisite: CRT or ARRT license or within one year of graduation from an accredited Radiologic Technology Program and CPR/Healthcare provider certification and venipuncture certification.
Corequisite: RT 191.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Teaches all basic physical principles of magnetic resonance imaging (MRI), including T1-T2 relaxation, pulse sequences, gradients, image acquisition, image formation, contrast media and instrumentation.

### RT 191  **Magnetic Resonance Imaging and Procedures**
2 units; 2 hours Lecture
Prerequisite: CRT or ARRT license or within one year of graduation from an accredited Radiologic Technology Program and CPR/Healthcare provider certification and venipuncture certification and RT 189A or equivalent skills.
Corequisite: RT 190 RT 191L.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Reviews common and specialty magnetic resonance imaging methodology and procedures. Studies magnetic resonance imaging with computer applications, scanner operations, and patient examination procedures.

### RT 191L  **Applied MRI Protocol and Procedures**
0.5 unit; 1.5 hours Laboratory
Corequisite: RT 191.
Recommended Preparation: Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.

Applies classroom theory (RT190 and RT191) to the lab setting. Studies the effects of computer applications, scanner operations and patient examination procedures on MRI.

### RT 192  **Magnetic Resonance Imaging Lab/Clinic**
8 units; 24 hours Laboratory
Prerequisite: RT 190 RT 191.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Introduces clinical education in the practice of Magnetic Resonance Imaging procedures. Provides the opportunity to demonstrate competency of MRI practices per ARRT test content specifications.

### RT 193  **Advanced Magnetic Resonance Imaging Lab/Clinic**
13 units; 40 hours Laboratory
Prerequisite: RT 192.
Recommended Preparation: Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.

Provides advanced clinical education in the practice of Magnetic Resonance Imaging procedures and opportunity for additional competency demonstration per ARRT test content specifications.
Reading Courses

**READ 52 Speed and Comprehension**
2 units; 2 hours Lecture
Prerequisite: READ 100 or READ 106 or appropriate assessment score.
Recommended Preparation: Eligibility for ENGL 100.
Repeatability: May be taken 1 time.
Improves both reading speed and comprehension through practical strategies including timed readings, vocabulary development, and eye-movement exercises. 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.
Repeatability: May be taken 1 time.
Develops college level reading skills, emphasizing critical reading in content areas, identifying thought patterns, analysis, and critical thinking skills.

**READ 106 Advanced Individualized Reading Lab**
1 unit; 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Provides individualized instruction in a lab setting for college level reading strategies such as critical analysis, vocabulary, comprehension, and speed. Assignments using various materials and e-learning, both of which include targeted readings one level below transfer. Pass/No Pass grading only.

**READ 112 Advanced Vocabulary**
1 unit; 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Emphasizes building academic vocabulary skills through independent study of context clues, figurative language and text analysis. Students work independently, in the lab and online, with no formal class meetings, completing at least 54 hours of study. Pass/No Pass grading only.

**READ 158RM Reading Math**
0.5 - 1 units; 1.5 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Focuses on the application of reading strategies to improve understanding of mathematics textbooks and word problems. Individualized and group instruction. Pass/No Pass grading only.

**READ 205 Introduction to College Reading**
3 units; 3 hours Lecture
Repeatability: May be taken 1 time.
Emphasizes improving fundamental reading skills, including word recognition, comprehension and vocabulary knowledge. Recommended for international students and those with below average reading skills. Pass/No Pass grading only.

**READ 206 Basic Individualized Reading Lab**
1 unit; 3 hours Laboratory
Repeatability: May be taken 1 time.
Provides individualized instruction in a lab setting for college level reading strategies such as vocabulary, reading purpose, and comprehension. Open to students with below college level reading ability. Assignments using various materials and e-learning, both of which include targeted readings two levels below transfer. Pass/No Pass grading only.

**READ 206SL ESL Individualized Reading**
1 unit; 3 hours Laboratory
Repeatability: May be taken 1 time.
Provides individualized reading instruction in a lab setting for students whose first language is not English, and who have below college level reading ability. Pass/No Pass grading only.

**READ 210A Basic Vocabulary**
1 unit; 3 hours Laboratory
Repeatability: May be taken 1 time.
Emphasizes building general vocabulary skills through independent study of context clues and word parts. Students work independently, in the lab and online, with no formal class meetings, completing at least 54 hours of study. Pass/No Pass grading only.

**READ 210B Intermediate Vocabulary**
1 unit; 3 hours Laboratory
Repeatability: May be taken 1 time.
Emphasizes building general and academic vocabulary skills through independent study of context clues and reading comprehension strategies. Students work independently, in the lab and online, with no formal class meetings, completing at least 54 hours of study. Pass/No Pass grading only.

**READ 255 Basic Reading**
3 units; 3 hours Lecture
Repeatability: May be taken 1 time.
Develops college level reading skills through the application of comprehension strategies. Emphasis is placed on active reading, vocabulary development, and study skills. Open to students with below college level reading ability. Pass/No Pass grading only.
Sociology A.A.-T Transfer Degree

Program Description

Sociology is the scientific, systematic study of human society and social 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.

Cabrillo offers options for degrees in Sociology. The first option listed below is the Associate in Arts in Sociology for Transfer (A.A.-T), which is intended for students who plan to complete a bachelor’s degree in a similar major at a CSU campus. Students completing these degrees are guaranteed admission to the CSU system, but not to a particular campus or major. This degree may not be the best option for students intending to transfer to a particular CSU campus or to a university or college that is not part of the CSU system. See Associate Degree for Transfer information in the Cabrillo College Catalog.

The following is required for all A.A.-T or A.S.-T degrees:

- Completion of 60 CSU-transferable semester units.
- Minimum grade-point average (GPA) of at least 2.0 in all CSU-transferable coursework. While a minimum of 2.0 is required for admission, some majors may require a higher GPA.
- Completion of a minimum of 18 semester units in the major with a letter grade of ‘C’ or better. A ‘P’ grade is not acceptable for courses in the major.
- Certified completion of the California State University General Education-Breadth pattern (CSU GE Breadth) or the Intersegmental General Education Transfer Curriculum (IGETC) pattern.

The second option lists the requirements for an A.A. Degree in Sociology from Cabrillo College.

Completion of CSU or IGETC General Education Requirements Units

With Core (3 units) Units
SOC 1 Introduction to Sociology: Understanding Society . . . 3
or
SOC 1H Honors Introduction to Sociology: Understanding Society ........................................... 3

LIST A (6-8 units) Take 2 courses from: Units
SOC 2 Contemporary Social Problems . . . . . . . . . . . . . . . . 3
or
SOC 2H Honors Contemporary Social Problems . . . . . . . . . . 3
MATH 12 Elementary Statistics . . . . . . . . . . . . . . . . . . . . . . . . 5
or
MATH 12H Honors Elementary Statistics . . . . . . . . . . . . . . . . . . 5
PSYCH 2A Statistics for Behavioral Sciences . . . . . . . . . . . . . . 3
PSYCH 2B Research Methods in Psychology . . . . . . . . . . . . . . 4

LIST B (6 units) Units
ANTHR 2 Introduction to Anthropology: Cultural . . . . . . . . . . 3
or
ANTHR 2H Introduction to Anthropology: Cultural (Honors) . . . 3
GEOG 2 Cultural Geography . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
PSYCH 1 General Psychology . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
or
PSYCH 1H Honors General Psychology . . . . . . . . . . . . . . . . . . . 3
PSYCH 6 Introduction to Social Psychology . . . . . . . . . . . . . . 3
SOC 3 Introduction to Race and Ethnicity . . . . . . . . . . . . . . . . 3
SOC 5 Introduction to Gender . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
SOC 47 Crime and Society . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
### Sociology A.A. Degree

**MODEL PROGRAM FOR SOCIOLOGY**

An Associate Degree requires 60 units appropriate to your educational goal, to include general education and at least 18 units in a major. Courses should be selected to meet the lower-division major preparation requirements at your intended transfer university - these specific course requirements can be found at www.assist.org for 4-year public institutions in California. Please see a counselor for advisement to ensure you are taking the best possible courses given your goal.

The department presents the following suggested model program for this major. The courses listed below may or may not be appropriate depending on your specific goal. Please see a counselor for advisement for transfer to any 4-year institution.

<table>
<thead>
<tr>
<th>A.A. General Education</th>
<th>30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Courses (12 Units)</td>
<td>Units</td>
</tr>
<tr>
<td>SOC 1</td>
<td>Introduction to Sociology: Understanding Society</td>
</tr>
<tr>
<td>or</td>
<td>SOC 1H</td>
</tr>
<tr>
<td>SOC 2</td>
<td>Contemporary Social Problems</td>
</tr>
<tr>
<td>or</td>
<td>SOC 2H</td>
</tr>
<tr>
<td>SOC 3</td>
<td>Introduction to Race and Ethnicity</td>
</tr>
<tr>
<td>SOC 9</td>
<td>Global Society</td>
</tr>
</tbody>
</table>

**Highly Recommended:**

| MATH 12 | Elementary Statistics | 5 |
| or | MATH 12H | Honors Elementary Statistics | 5 |

**Approved Sociology Electives (6-9 Units)**

| SOC 5 | Introduction to Gender | 3 |
| SOC 8 | Introduction to Latina/o Studies | 3 |
| SOC 47 | Crime and Society | 3 |

**Electives (Transfer): (9-12 Units)**

| (Any Course Numbered 1-99) | 9-12 |

**Total Units**

60

*Note: all courses also meet general education requirements.*

---

### Sociology Courses

**SOC 1**

**Introduction to Sociology: Understanding Society**

3 units; 3 hours Lecture

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Repeatability: May be taken 1 time.

Introduces core principles in the scientific study of the social causes and consequences of human behavior. Examines the ways in which forms of social structure (such as groups, organizations, communities), social categories (such as class, gender, sexuality, race/ethnicity), along with various social institutions (such as family, economy, and politics), affect human experiences, perceptions, and behaviors. May be offered in a Distance-Learning Format.

*Transfer Credit: Transfers to CSU; UC. C-ID SOCI 115*

**SOC 1H**

**Honors Introduction to Sociology: Understanding Society**

3 units; 3 hours Lecture

Prerequisite: Honors standing.

Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.

Repeatability: May be taken 1 time.

Introduces core principles in the scientific study of the social causes and consequences of human behavior. Examines the ways in which forms of social structure (such as groups, organizations, communities), social categories (such as class, gender, sexuality, race/ethnicity), along with various social institutions (such as family, economy, and politics), affect human experiences, perceptions, and behaviors. Highlights student research, writing, and reporting, both individually and as part of a learning community, and will often meet in a seminar format.

*Transfer Credit: Transfers to CSU; UC. C-ID SOCI 110*

**SOC 2**

**Contemporary Social Problems**

3 units; 3 hours Lecture

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Repeatability: May be taken 1 time.

Examines the social, economic, and political definitions, causes, and consequences of major social problems. Evaluates proposed solutions to social problems and methods of intervention. Topics include systemic inequalities along socioeconomic, racial/ethnic, and gender lines and problems in major areas of social life including families, schools, health, and law. May be offered in a Distance-Learning Format.

*Transfer Credit: Transfers to CSU; UC. C-ID SOCI 115*

**SOC 2H**

**Honors Contemporary Social Problems**

3 units; 3 hours Lecture

Prerequisite: Honors standing.

Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.

Repeatability: May be taken 1 time.

Examines the social, economic, and political definitions, causes, and consequences of major social problems. Evaluates proposed solutions to social problems and methods of intervention. Topics include systemic inequalities along socioeconomic, racial/ethnic, and gender lines and problems in major areas of social life including families, schools, health, and law. Highlights student research, writing, and reporting, both individually and as part of a learning community, and will often meet in a seminar format.

*Transfer Credit: Transfers to CSU; UC. C-ID SOCI 115*
SOC 3  Introduction to Race and Ethnicity  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Examines the social, economic, political, and cultural dynamics of race and ethnicity in the United States. Introduces major theories and concepts used to analyze minority/majority relations such as social construction of race, racial formation, critical race theory, internal colonialism and gendered racism. Topics include immigration patterns, comparative studies, and cultural representations of racial and ethnic groups.  
Transfer Credit: Transfers to CSU; UC. C-ID SOCI 150

SOC 5  Introduction to Gender  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Analyzes the social construction of masculinities and femininities historically and cross-culturally. Examines the impact of economic and political change on gender expectations and practices. Focuses on macro-level analysis of how institutions shape gender and micro-level analysis of how individuals are socialized to “do” gender. Emphasizes how interactions of gender, race and ethnicity, class, and sexuality shape individual and group experiences.  
Transfer Credit: Transfers to CSU; UC. C-ID SOCI 140

SOC 8  Introduction to Latina/o Studies  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Examines the contemporary experiences of Latina/o groups in the U.S., focusing on regional, national, and transnational processes. Surveys the conditions of a wide range of U.S. Latinas/os, including groups from Mexican, Latin American, and Caribbean backgrounds. Topics may include immigration, segregation, racism, education, language and culture, socioeconomic and labor force status, political participation, and civil rights.  
Transfer Credit: Transfers to CSU; UC.

SOC 9  Global Society  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Examines contemporary social, economic, political, cultural, and environmental issues in a global context. Focuses on the emergence and long-term historical dynamics of the capitalist world system and the roles of regions, nations, organizations, communities, households, and individuals within it. Topics may include colonialism, globalization, poverty, health, technological and environmental change, global conflict and violence, and social movements.  
Transfer Credit: Transfers to CSU; UC.

SOC 10  Sociology of Popular Culture  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Analyzes the politics of popular culture forms and practices such as music, leisure, entertainment, sports, television, fashion, and film. Examines the ways in which popular culture reflects and reproduces race, class, gender and sexual identities and structures. Employs contemporary theories and methods from sociology, feminist studies, American studies, ethnic studies, and cultural studies.  
Transfer Credit: Transfers to CSU; UC.

SOC 39AZ  Sociological Studies  
1 - 3 units; 1 hour Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
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; 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.

SOC 47  Crime and Society  
3 units; 3 hours Lecture  
Recommended Preparation: Eligibility for ENGL 100 and READ 100.  
Repeatability: May be taken 1 time.  
Examines crime, criminal behavior, and the criminal justice system in a social and historical context. Focuses on the impact of systemic inequalities on the social construction of crime, criminality, and crime control. Topics include lawmaking, policing, sentencing, corrections, criminological theory, and institutional discrimination and change.  
Transfer Credit: Transfers to CSU; UC. C-ID SOCI 160

SPANISH

Business, English, and Language Arts Division
James Weckler, Division Dean
Division Office-Room 301
Nancy Stucker, Program Chair, (831) 477-3221
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 786-4734
Call (831) 479-6400 for more information
www.cabrillo.edu/programs

Spanish A.A. Degree
Program Description

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 dependent upon previous training. As a minimum requirement, the student should complete SPAN 4 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

An Associate Degree requires 60 units appropriate to your educational goal, to include general education and at least 18 units in a major. Courses should be selected to meet the lower-division major preparation requirements at your intended transfer university—the specific requirements can be found at www.assist.org for 4-year public institutions in California. Please see a counselor for advisement to ensure you are taking the best possible courses given your goal.

The department presents the following suggested model program for this major. The courses listed below may or may not be appropriate depending on your specific goal. Please see a counselor for advisement for transfer to any 4-year institution.

### A.A. General Education

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<tr>
<th>Units</th>
<th>Core Courses (18-20 Units)</th>
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<tr>
<td>5</td>
<td>SPAN 1 Elementary Spanish I</td>
</tr>
<tr>
<td>or</td>
<td>SPAN 16 Elementary Spanish for Spanish Speakers</td>
</tr>
<tr>
<td>5</td>
<td>SPAN 2 Elementary Spanish II</td>
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<tr>
<td>or</td>
<td>SPAN 17 Elementary Spanish for Spanish Speakers</td>
</tr>
<tr>
<td>5</td>
<td>SPAN 3 Intermediate Spanish I</td>
</tr>
<tr>
<td>5</td>
<td>SPAN 4 Intermediate Spanish II</td>
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<table>
<thead>
<tr>
<th>Units</th>
<th>Approved Electives (0-2 Units)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>SPAN 5A Advanced Grammar and Composition</td>
</tr>
<tr>
<td>3</td>
<td>SPAN 6A Spanish Through Film-Latin America</td>
</tr>
<tr>
<td>3</td>
<td>SPAN 6B Spanish Through Film-Spain</td>
</tr>
<tr>
<td>3</td>
<td>SPAN 10A Intermediate Spanish Conversation</td>
</tr>
<tr>
<td>3</td>
<td>SPAN 10B Advanced Spanish Conversation</td>
</tr>
<tr>
<td>3</td>
<td>SPAN 25 Advanced Spanish-Literature of Spain</td>
</tr>
<tr>
<td>3</td>
<td>SPAN 26 Advanced Spanish-Literature of Latin America</td>
</tr>
<tr>
<td>3</td>
<td>SPAN 30B Mexican Civilization and Culture</td>
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<table>
<thead>
<tr>
<th>Units</th>
<th>Electives:</th>
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<tbody>
<tr>
<td>10</td>
<td>(Any Course Numbered 1-99)</td>
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**Total Units** 60

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### Spanish Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
<th>Type</th>
<th>Prerequisite</th>
<th>Recommended Preparation</th>
<th>Repeatability</th>
<th>Transfer Credit</th>
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<tbody>
<tr>
<td>SPAN 1</td>
<td>Elementary Spanish I</td>
<td>5</td>
<td>Lecture</td>
<td>SPAN 4 or equivalent</td>
<td>Eligibility for ENGL 100 and READ 100</td>
<td>May be taken 1 time</td>
<td>Transfers to CSU; UC</td>
</tr>
<tr>
<td>SPAN 2</td>
<td>Elementary Spanish II</td>
<td>5</td>
<td>Lecture</td>
<td>SPAN 1 or two years of high school Spanish or equivalent skills</td>
<td>Eligibility for ENGL 100 and READ 100</td>
<td>May be taken 1 time</td>
<td>Transfers to CSU; UC</td>
</tr>
<tr>
<td>SPAN 3</td>
<td>Intermediate Spanish I</td>
<td>5</td>
<td>Lecture</td>
<td>SPAN 2 or equivalent skills</td>
<td>Eligibility for ENGL 100 and READ 100</td>
<td>May be taken 1 time</td>
<td>Transfers to CSU; UC</td>
</tr>
<tr>
<td>SPAN 4</td>
<td>Intermediate Spanish II</td>
<td>5</td>
<td>Lecture</td>
<td>SPAN 3 or equivalent skills</td>
<td>Eligibility for ENGL 100 and READ 100</td>
<td>May be taken 1 time</td>
<td>Transfers to CSU; UC</td>
</tr>
<tr>
<td>SPAN 5A</td>
<td>Advanced Grammar and Composition</td>
<td>3</td>
<td>Lecture</td>
<td>SPAN 4 or equivalent skills</td>
<td>Eligibility for ENGL 100 and READ 100</td>
<td>May be taken 1 time</td>
<td>Transfers to CSU; UC</td>
</tr>
<tr>
<td>SPAN 6A</td>
<td>Spanish Through Film - Latin America</td>
<td>3</td>
<td>Lecture</td>
<td>SPAN 4 or equivalent skills</td>
<td>Eligibility for ENGL 100 and READ 100</td>
<td>May be taken 1 time</td>
<td>Transfers to CSU; UC</td>
</tr>
</tbody>
</table>
SPAN 6B  Spanish Through Film - Spain
3 units; 3 hours Lecture
Prerequisite: SPAN 4 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Surveys contemporary Spanish society and improves written and spoken Spanish through discussion and written analysis of selected Spanish films.
Transfer Credit: Transfers to CSU; UC.

SPAN 10A  Intermediate Spanish Conversation
3 units; 3 hours Lecture
Prerequisite: SPAN 2 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Develops conversational skills with attention to accuracy, vocabulary, and pronunciation. Discussion of cultural topics and situations.
Transfer Credit: Transfers to CSU; 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 1 time.
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 audiovisual sources.
Transfer Credit: Transfers to CSU; 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.
Repeatability: May be taken 1 time.
Develops reading, writing, speaking, and listening comprehension skills in Spanish; for students who speak Spanish but who have minimal or no formal instruction in the language. Focuses on reading development, orthography, lexical expansion, formal grammar, and facility in writing and composition. Develops a greater awareness of Hispanic culture.
Transfer Credit: Transfers to CSU; UC, with limits: SPAN 16 & 17 combined with SPAN 1 & 2-maximum credit-1 series. SPAN 1 & 16 combined-maximum credit-1 course.

SPAN 17  Elementary Spanish for Spanish Speakers
4 units; 4 hours Lecture
Prerequisite: SPAN 16 or equivalent skills.
Repeatability: May be taken 1 time.
Further develops of correct Spanish usage through speaking, reading and writing. Reading selections reflect the diversity of Hispanic culture.
Transfer Credit: Transfers to CSU; UC, with limits: SPAN 16 & 17 combined with SPAN 1 & 2-maximum credit-1 series. SPAN 2 & 17 combined-maximum credit-1 course.

SPAN 20AZ  Practical Spanish for Professionals and Service Personnel
2 units; 2 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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–Literature of Spain
3 units; 3 hours Lecture
Prerequisite: SPAN 4 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Surveys Spanish literature. Emphasizes skill-building through reading, writing, listening and speaking Spanish. Critical analytical written work is the primary means of evaluating student performance in this course.
Transfer Credit: Transfers to CSU; UC.

SPAN 26  Advanced Spanish–Literature of Latin America
3 units; 3 hours Lecture
Prerequisite: SPAN 4 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Surveys Latin American prose and poetry. Focuses on intensive reading, writing, listening and speaking Spanish. Critical analytical written work is the primary means of evaluating student performance in this course.
Transfer Credit: Transfers to CSU; UC.

SPAN 30B  Mexican Civilization and Culture
3 units; 3 hours Lecture
Prerequisite: SPAN 4 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Explores Mexican culture from the pre-Hispanic period to the present. Focuses on art, literature, history and politics. Conducted in Spanish.
Transfer Credit: Transfers to CSU; UC.
STROKE AND DISABILITY LEARNING CENTER

SPECIAL EDUCATION
Health, Athletics, Wellness, and Kinesiology Division
Ian Haslam, Division Dean
Division Office, Room 1102
Debora Bone, Stroke Center Director, (831) 477-3303
Call (831) 477-3300 for more information
http://www.cabrillo.edu/programs

The Stroke and Disability Learning Center offers a series of special classes for adults with physical and/or neurological limitations including mobility, fitness skills, adaptation, problem solving, and oral and written communication skills. Classes are held in the new Stroke and Disability Learning Center on the Aptos campus. A physician’s approval will be required. Call (831) 477-3300 for enrollment information or check the website at www.strokecenter.com.

Special Education Courses

SPED 210 Adaptive Speech and Language Skills
0.5 - 5 units; 0.5 hour Lecture or 1.5 hours Laboratory
Prerequisite: Must be able to follow group instruction and be independent in self-management (or provide care attendant.)
Recommended Preparation: Eligibility for Disabled Students Programs and Services; SPED 215.
Repeatability: May be taken 1 time.
Provides communication skills and strategies for students with physical/neurological limitations and other Disabled Students Program and Services (DSPS) documented disabilities. Emphasis on practical application of skills in language, cognition, and social dynamics. Offered as part of the in the Stroke and Disabilities Learning Center.

SPED 215 Orientation to Stroke and Disability Learning Center
0.5 - 1 units; 0.5 hour Lecture or 1.5 hours Laboratory
Prerequisite: Must be able to follow group instruction and be independent in self-management (or provide care attendant.)
Recommended Preparation: Eligibility for Disabled Student Programs and Services.
Repeatability: May be taken 1 time.
Provides counseling, review of skills and overview of interdisciplinary program for students with physical/neurological limitations. Includes the development of Student Educational Contract (SEC). Offered as part of the in the Stroke and Disabilities Learning Center.

SPED 216 Exploring Abilities
0.5 - 5 units; 0.5 hour Lecture or 1.5 hours Laboratory
Prerequisite: Must be able to follow group instruction and be independent in self-management (or provide care attendant.)
Recommended Preparation: Eligibility for Disabled Students Programs and Services; SPED 215.
Repeatability: May be taken 1 time.
Counsels students with physical/neurological limitations on techniques to understand and manage deficits, increase readiness for educational objectives, develop new abilities and maximize use of college and community resources. Offered in the Stroke and Disability Learning Center.

SPED 220AZ Special Topics in Adaptation and Abilities
0.5 - 5 units; 0.5 hour Lecture or 1.5 hours Laboratory
Prerequisite: Must be able to follow group instruction and must be independent in self-management (or provide care attendant.)
Recommended Preparation: Eligibility for Disabled Students Programs and Services; SPED 215.
Repeatability: May be taken 1 time.
Selected topics in Adaptation and Abilities 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. Focus on assessment, counseling and instruction related to speech, language and communication limitations, social/cognitive deficits, acquired brain injuries and other physical/functional challenges.

Subject/Special Studies/Career Work Experience Education Courses

Special Subject

SUBJECT 80S Special Studies I
1 - 4 units; 1 hour Independent Study
Prerequisite: Nomination by a faculty member.
Repeatability: May be taken 1 time.
Independent study requiring the demonstrated skills and/or proficiency in the applied subject area, and for those who have the initiative to work independently on projects or research outside the context of regularly scheduled classes. This course carries transfer subject matter credit and elective credit to four-year institutions. Courses will be designed by department.
Transfer Credit: Transfers to CSU; 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.
SUBJECT 80SB
Special Studies II
1 - 4 units; 1 hour Independent Study
Prerequisite: Nomination by a faculty member.
Repeatability: May be taken 1 time.

Independent study requiring the demonstrated skills and/or intermediate proficiency in the applied subject area, and for those who have the initiative to work independently on projects or research outside the context of regularly scheduled classes. This course carries transfer subject matter credit and elective credit to four-year institutions. Courses will be designed by department.

Transfer Credit: Transfers to CSU; 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.

SUBJECT 80SC
Special Studies III
1 - 4 units; 1 hour Independent Study
Prerequisite: Nomination by a faculty member.
Repeatability: May be taken 1 time.

Independent study requiring the demonstrated skills and/or advanced proficiency in the applied subject area, and for those who have the initiative to work independently on projects or research outside the context of regularly scheduled classes. This course carries transfer subject matter credit and elective credit to four-year institutions. Courses will be designed by department.

Transfer Credit: Transfers to CSU; 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.

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 1 time.

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.

Cooperative Work Experience

CWEE 99C
Career Work Experience Education
0.5 - 4 units; 2.08 hours paid work for 37.5 hours
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Career Work Experience Education is designed for students who have decided on a career and/or major, and 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 unpaid work experience per semester. CWEE99C is designed for students who intend to transfer to a 4-year institution that accepts Work Experience Education.

Transfer Credit: Transfers to CSU: 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 99G
General Work Experience Education
1 - 3 units; 4.16 hours paid work for 75.0 hours
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

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 4-year institution that accepts Work Experience Education.

Transfer Credit: Transfers to CSU: 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 99SL
Service Learning Work Experience Education
0.5 - 3 units; 2.08 hours paid work for 37.5 hours
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Service Learning integrates community service with academic learning focusing on meeting unmet community needs and achieving course objectives. The program combines classroom instruction with 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. CWEE 99G is designed for the student who intends to transfer to a 4-year institution that accepts Service Learning/Work Experience Education.

Transfer Credit: Transfers to CSU.

CWEE 199C
Career Work Experience Education
0.5 - 4 units; 2.08 hours paid work for 37.5 hours
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Career Work Experience Education is designed for students who have decided on a career and/or major, are taking classes in their major, and 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 unpaid work experience or 75 hours of paid work experience per semester.
CWEE 199G
General Work Experience Education
1 - 3 units; 4.16 hours paid work for 75.0 hours
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

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 199SL
Service Learning Work Experience Education
0.5 - 3 units; 2.08 hours paid work for 37.5 hours
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Service Learning integrates community service with academic learning focusing on meeting unmet community needs and achieving course objectives. The program combines classroom instruction with 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 of unpaid work experience.

THEATRE ARTS/DRAMA
Visual, Applied, and Performing Arts Division
John Graulty, Division Dean
Division Office, Room VAPA1007
Sarah Albertson, Co-Program Chair, (831) 477-3257
Skip Epperson, Co-Program Chair, (831) 479-6168
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 786-4734
Call (831) 479-6464 for more information
http://www.cabrillo.edu/programs

Theatre Arts
Theatre Arts A.A.-T Transfer Degree

Students pursuing a bachelor's degree in Theatre Arts or 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. Students in theatre arts/drama may transfer and pursue careers in acting, theatre lighting, costume design, set production, scenery design, scene painting, television production, theatre production management, stage management, teaching and directing. Cabrillo offers options for degrees in Theatre Arts. The first option listed below is the Associate in Arts in Theatre Arts for Transfer (A.A.-T), which is intended for students who plan to transfer and complete a bachelor's degree in a similar major at a CSU campus. Students completing an A.A.-T/A.S.-T are guaranteed admission to the CSU system, but not to a particular campus or major. This degree may not be the best option for students intending to transfer to a particular CSU campus or to a university or college that is not part of the CSU System. See Associate Degree for Transfer information in the Cabrillo College Catalog.

The following is required for all A.A.-T or A.S.-T degrees:

- Completion of 60 CSU-transferable semester units.
- Minimum grade-point average (GPA) of at least 2.0 in all CSU-transferable coursework. While a minimum of 2.0 is required for admission, some majors may require a higher GPA.
- Completion of a minimum of 18 semester units in the major with a letter grade of "C" or better. A "P" grade is not acceptable for courses in the major.
- Certified completion of the California State University General Education-Breadth pattern (CSU GE Breadth) or the Intersegmental General Education Transfer Curriculum (IGETC) pattern. . . .
Program Description

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

An Associate Degree requires 60 units appropriate to your educational goal, to include general education and at least 18 units in a major. Courses should be selected to meet the lower-division major preparation requirements at your intended transfer university - these specific requirements can be found at www_assist org for 4-year public institutions in California. Please see a counselor for advisement to ensure you are taking the best possible courses given your goal.

The department presents the following suggested model program for this major. The courses listed below may or may not be appropriate depending on your specific goal. Please see a counselor for advisement for transfer to any 4-year institution.

A.A. General Education

Core Courses Select 18 units from:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>TA 7</td>
<td>Introduction to Acting</td>
<td>3</td>
</tr>
<tr>
<td>TA 10A</td>
<td>Basic Acting Techniques</td>
<td>3</td>
</tr>
<tr>
<td>TA 10B</td>
<td>Intermediate Acting</td>
<td>3</td>
</tr>
<tr>
<td>TA 11</td>
<td>Voice and Diction for the Theatre</td>
<td>3</td>
</tr>
<tr>
<td>TA 14</td>
<td>The Art of Play Reading</td>
<td>3</td>
</tr>
<tr>
<td>TA 27</td>
<td>Theatre Production Workshop</td>
<td>1-3</td>
</tr>
<tr>
<td>TA 28</td>
<td>Backstage Theatre</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units 13-17

Musical Theatre Skills Certificate

Program Description

The Musical Theatre skills certificate is designed to prepare the student for basic performance competency in the field of Musical Theatre specifically: vocal control in character, legt and belt styles, physical characterization and movement, acting, analysis of music and text and public performance. Additional classes in acting, dance and singing are highly recommended.

Program Learning Outcomes

1. Assess, demonstrate and synthesize basic musical, dramatic, physical and analytic skills necessary for performance in musical theatre.

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>TA 10A</td>
<td>Basic Acting Techniques</td>
<td>3</td>
</tr>
<tr>
<td>TA 10B</td>
<td>Intermediate Acting</td>
<td>3</td>
</tr>
<tr>
<td>TA 10C</td>
<td>Advanced Acting</td>
<td>3</td>
</tr>
<tr>
<td>TA 12A</td>
<td>Movement for Actors</td>
<td>3</td>
</tr>
<tr>
<td>TA 12B</td>
<td>Intermediate Movement for Actors</td>
<td>3</td>
</tr>
<tr>
<td>TA 72</td>
<td>Characterization for the Musical Stage</td>
<td>1-3</td>
</tr>
<tr>
<td>TA 73</td>
<td>Voice and the Musical Stage</td>
<td>1-3</td>
</tr>
<tr>
<td>TA 74</td>
<td>Acting for Musical Theatre</td>
<td>3</td>
</tr>
<tr>
<td>TA 75</td>
<td>Musical Theatre Production</td>
<td>1-3</td>
</tr>
<tr>
<td>TA 76CA</td>
<td>Musical Theatre Workshop-Cast</td>
<td>0.5-3</td>
</tr>
<tr>
<td>TA 76CR</td>
<td>Musical Theatre Workshop-Crew</td>
<td>0.5-3</td>
</tr>
<tr>
<td>DANCE 2A</td>
<td>Introduction to Dance</td>
<td>0.5-3</td>
</tr>
</tbody>
</table>

Total Units 60
Technical Theatre Skills Certificate

Program Description

Trains students to build scenery, properties, and costumes for the technical theatre. Provides experience in construction, painting, hanging lighting instruments, building costumes, and working backstage. Prepares the student to communicate and participate as members of a production team with an understanding of appropriate terminology and procedures.

Program Learning Outcomes

1. Assess, demonstrate and synthesize techniques and skills necessary for work in technical theatre.

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>TA 28</td>
<td>Backstage Theatre</td>
<td>3</td>
</tr>
<tr>
<td>TA 31</td>
<td>Introduction to Design in the Theatre</td>
<td>3</td>
</tr>
<tr>
<td>TA 33</td>
<td>Makeup and Masks</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>TA 34</td>
<td>3</td>
</tr>
<tr>
<td>TA 34</td>
<td>Costume Workshop</td>
<td>3</td>
</tr>
<tr>
<td>TA 35</td>
<td>Scene Painting</td>
<td>3</td>
</tr>
<tr>
<td>TA 27</td>
<td>Theatre Production Workshop</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>TA 76CR</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Musical Theatre Workshop-Crew</td>
<td></td>
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<tr>
<td>Total</td>
<td></td>
<td>15</td>
</tr>
</tbody>
</table>

Theatre Arts Courses

TA 7  Introduction to Acting

3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Presents the basic techniques of performance on stage focusing on the theatrical imagination. Explores movement, voice, improvisation, scene interpretation and other aspects of the actor in production. For theatre and non-theatre majors.
Transfer Credit: Transfers to CSU; UC.

TA 8  World Theatre History

3 units; 3 hours Lecture; 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Introduces the historical, cultural, and religious contexts of world theatre traditions from the origins of theatre through the 17th century. Examines ethnic and political diversity. Plays and other theatrical performances are analyzed regarding structure, plot, character and historical context. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.
Transfer Credit: Transfers to CSU; UC. C-ID THTR 111

TA 9  Appreciation of Theatre Arts

3 units; 3 hours Lecture; 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

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. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.
Transfer Credit: Transfers to CSU; UC. C-ID THTR 111

TA 10A  Basic Acting Techniques

3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Hybrid Requisite: Completion of or concurrent enrollment in TA 250.
Repeatability: May be taken 1 time.

Examines major theories of acting within a framework of lecture, exercises and scene work; focus is on characterization, theatrical imagination, stage movement and vocal projection.
Transfer Credit: Transfers to CSU; UC. C-ID THTR 151

TA 10B  Intermediate Acting

3 units; 3 hours Lecture
Prerequisite: TA 10A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Hybrid Requisite: Completion of or concurrent enrollment in TA 250.
Repeatability: May be taken 1 time.

Explores an intermediate level theories, techniques and acting styles use in the preparation and performance of a theatrical role. Emphasizes deepening understanding of the acting process through character analysis.
Transfer Credit: Transfers to CSU; UC. C-ID THTR 152

TA 10C  Advanced Acting

3 units; 3 hours Lecture
Prerequisite: TA 10B.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Hybrid Requisite: Completion of or concurrent enrollment in TA 250.
Repeatability: May be taken 1 time.

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; UC.

TA 11  Voice and Diction for the Theatre

3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

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; UC.
TA 12A  Movement for Actors
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Hybrid Requisite: Completion of or concurrent enrollment in TA 250.
Repeatability: May be taken 1 time.
Presents basic instruction in stage movement including dance, mime, stage combat, t’ai chi, creative movement and contact scene study.
Transfer Credit: Transfers to CSU; UC.

TA 12B  Intermediate Movement for Actors
3 units; 3 hours Lecture
Prerequisite: TA 12A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Hybrid Requisite: Completion of or concurrent enrollment in TA 250.
Repeatability: May be taken 1 time.
Presents movement in relation to scene study, directorial blocking, props, character analysis. Period styles, contact scenes.
Transfer Credit: Transfers to CSU; UC.

TA 13A  Beginning Improvisation
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Hybrid Requisite: Completion of or concurrent enrollment in TA 250.
Repeatability: May be taken 1 time.
Covers the creation of nonscripted theatre through improvisational scenes and theatre games. Develops group consciousness and trust with ensemble building techniques.
Transfer Credit: Transfers to CSU; UC.

TA 13B  Intermediate Improvisation
3 units; 3 hours Lecture
Prerequisite: TA 13A.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Hybrid Requisite: Completion of or concurrent enrollment in TA 250.
Repeatability: May be taken 1 time.
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; UC.

TA 14  The Art of Play Reading
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Hybrid Requisite: Completion of or concurrent enrollment in TA 250.
Repeatability: May be taken 1 time.
Studies theatre, film, radio and television scripts in a variety of genres through reading, discussion, and interpretation. Materials will be drawn from contemporary and historical texts in worldwide perspective. Emphasis on reading plays and scripts understanding their unique structure, character and author voices, historical and societal context.
Transfer Credit: Transfers to CSU; UC. C-ID THTR 114

TA 15  Styles of Acting/Playing Shakespeare
3 units; 3 hours Lecture
Prerequisite: TA 10B or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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.
Transfer Credit: Transfers to CSU; UC.

TA 17  Introduction to Directing
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Presents principles of basic directing, the history of the director in European and American theatre, scene analysis and interpretation.
Transfer Credit: Transfers to CSU; UC.

TA 18  Narrative Performance
3 units; 3 hours Lecture
Prerequisite: TA 7 or equivalent skills TA 10A or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Hybrid Requisite: Completion of or concurrent enrollment in TA 250.
Repeatability: May be taken 1 time.
Examines dramatic literature through oral interpretation techniques. Includes rehearsals of voice usage and staging, to performance. Lectures, practice sessions, casual and formal readings and production.
Transfer Credit: Transfers to CSU; UC.

TA 21  Acting for the Camera
3 units; 3 hours Lecture
Prerequisite: TA 7 or TA 10A or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Hybrid Requisite: Completion of or concurrent enrollment in TA 250.
Repeatability: May be taken 1 time.
Explores the actor’s relationship to the screen image by performing and evaluating on camera interviews, auditions, improvisations and monologue/scene study.
Transfer Credit: Transfers to CSU.

TA 27  Theatre Production Workshop
1 - 3 units; 1 hour Lecture, 2 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken a total of 4 times.
Presents 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. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering.
Transfer Credit: Transfers to CSU; UC. C-ID THTR 192
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 1 time.
Surveys all components of theater technology (stagecraft) in lighting, sound, scenery, painting, costumes, stage management, makeup and properties. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC. C-ID THTR 171

TA 29  Rehearsal and Performance
1 - 3 units; 1 hour Lecture, 2 hours Laboratory
Corequisite: TA 27 or TA 28 or TA 33 or TA 34 or TA 35.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken a total of 4 times.
Presents 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; UC. C-ID THTR 191

TA 31  Introduction to Design in the Theatre
3 units; 2 hours Lecture; 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Presents a wide exploration of design for the theatre including projects in set, costume, lighting, and sound design. This course may be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC. C-ID THTR 172

TA 33  Makeup and Masks
3 units; 2 hours Lecture; 4 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Presents an introduction to the theory and practice of makeup for the stage including practice in the design and application of straight, stylized character, special effects, and other makeup techniques.
Transfer Credit: Transfers to CSU; UC. C-ID THTR 175

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 1 time.
Presents an introduction to costume theory, design, and construction for the theatre.
Transfer Credit: Transfers to CSU; UC.

TA 35  Scene Painting
3 units; 2 hours Lecture; 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Presents 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; UC.

TA 72  Characterization for the Musical Stage
1 - 3 units; 1 hour Lecture; 0.5 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Studies basic techniques in movement with emphasis on physicalization, characterization and vocal control.
Transfer Credit: Transfers to CSU.

TA 73  Voice and the Musical Stage
1 - 3 units; 1 hour Lecture; 0.5 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Studies voice technique for the Broadway musical including: character, legt, belt and the mixing of speech and singing. Song literature will be taken from the musical comedy repertoire covering multiple styles.
Transfer Credit: Transfers to CSU; UC.

TA 74  Acting for Musical Theatre
3 units; 3 hours Lecture; 1 hour Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Examines the study of basic techniques of musical theatre performance including: music and text analysis and scene work that includes singing, choreography and dialog.
Transfer Credit: Transfers to CSU; UC.

TA 75  Musical Theatre Production
1 - 3 units; 5 hours Laboratory
Prerequisite: By audition.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken a total of 4 times.
Rehearsal and performance of musical and musical comedy literature with concentration on all aspects of the production related to professional performance; audition by musical theatre staff is required for enrollment.
Transfer Credit: Transfers to CSU; UC.

TA 76CA  Musical Theatre Workshop-Cast
0.5 - 3 units; 2.5 hours Laboratory
Prerequisite: By audition.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken a total of 4 times.
Develops skills applicable to musical theatre performance, through participation in on-stage aspects of a production: open to students cast in the production.
Transfer Credit: Transfers to CSU; UC pending review.

TA 76CR  Musical Theatre Workshop-Crew
0.5 - 3 units; 2.5 hours Laboratory
Prerequisite: By assignment.
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken a total of 4 times.
Develops skills applicable to musical theatre production, through participation in production staff and/or back-stage crew assignments.
Transfer Credit: Transfers to CSU; UC pending review.
**WELDING**

**Natural and Applied Sciences Division**

Wanda Garner, Division Dean

Division Office, Room 701

Gary Marcoccia, Program Chair, (831) 479-5705

Aptos Counselor: (831) 479-6274 for appointment

Watsonville Counselor: (831) 786-4734

Call (831) 479-6328 for more information

http://www.cabrillo.edu/programs

**Welding**

**Program Description:**

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.

**TA 85AZ  Studies in Theatre Arts**

1 - 3 units; 1 hour Lecture; 0.5 hour Laboratory

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Repeatability: May be taken 1 time.

Investigates areas of interest in Theatre Arts. The specific course content will be described in the Schedule of Classes. Some of the class hours for these courses may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about a particular course offering.

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

**TA 250  Theatre Arts Laboratory**

0.5 unit; 1 hour Laboratory

Recommended Preparation: Eligibility for ENGL 100 and READ 100.

Repeatability: May be taken 1 time.

Provides supervised audio/video/computer lab experience relating to other Performing Arts course curriculum. Designed to increase student skills and concepts. Pass/No Pass only. Enrollment is permitted through the twelfth week of instruction.

**Basic Welding Skills Certificate**

**Program Learning Outcomes:**

1. In SMAW, perform and pass a standardized AWS qualification test on 3/8" steel plate in the flat one or more welding positions other than flat using an E7018 class electrode.
2. In GMAW, perform and pass a standardized AWS qualification test on 3/8" steel plate in the flat position and demonstrate consistency in performing single pass welds on sheet steel all positions.
3. In GTAW, perform and show consistency in welding of steel, stainless steel and aluminum sheet stock in all positions and the welding of steel tubing in the 2G and 5G positions.
4. Students will demonstrate skills in joining sheetmetal by means of soldering, riveting, spot welding and forming metal locks. In addition students will be able to develop a variety of patterns to form sheetmetal components and transitions.

**Core Courses Semester #1:**

- W 151  Gas and TIG Welding  ............... 2
- W 156  Introduction to Sheet Metal Fabrication  ............... 2

**Semester #2:**

- W 150  Arc Welding  ............... 2
- W 152  * Advanced Welding  ............... 2

**Total Units 8**

*Requires W 150 or 151 (or demonstrated skill equivalence)

**Advanced Welding Skills Certificate**

**Program Learning Outcomes:**

1. In SMAW, perform and pass a standardized AWS qualification test on 3/8" steel plate in the 2G, 3G and 4G welding positions using an E7018 class electrode.
2. In GMAW, perform and pass a standardized AWS qualification test on 3/8" steel plate in the 2G, 3G and 4G positions.
3. In GTAW, perform and show consistency in welding of purged steel, stainless steel and aluminum pipe and tubing in all positions.
4. Students will demonstrate consistency in welding of steel pipe with the SMAW and GTAW methods in all positions and pass standardized AWS qualification testing of pipe weld coupons.
5. Students will demonstrate consistency in interpreting blue prints, selecting and cutting metal stock, drilling, forming and preparing of parts; assembling, tacking and welding of components and finishing of projects.

**Semester #1:**

- W 152A  * * Advanced Arc Welding  ............... 1
- W 154  * * Pipe Welding  ............... 2

**Semester #2:**

- W 158  * Welding Fabrication  ............... 2

**Semester #3:**

- W 152B  ** Advanced MIG Welding  ............... 1

**Semester #4:**

- W 152C  * Advanced TIG Welding  ............... 1

**AWS**

**Total Units 7**

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 the Welding Department for enrollment information.

*Requires W 150 or 151 (or demonstrated skill equivalence)  **Requires W 152 (or demonstrated skill equivalence) *
Welding Courses

W 150  Arc Welding
2 units; 1 hour Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.
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 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.
Presents 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 equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.
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 equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.
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 equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.
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 equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.
Continues 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 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.
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 READ 100.
Repeatability: May be taken 1 time.
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 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.
Presents an introduction to and basic training in metal forming, fastening and blueprint reading skills. Develops 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 and READ 100; Eligibility for MATH 154.
Repeatability: May be taken 1 time.
Presents advanced training in steel fabrication utilizing state-of-the-art welding processes with emphasis on blueprint interpretation and welding codes.

W 190AZ  Special Topics in Welding
0.5 - 5 units; 0.5 hour Lecture or 1.5 hours Laboratory
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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
Isabel O’Connor, Division Dean
Division Office, Room 420
M. Teresa Macedo, Program Chair, (831) 477-3254
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 786-4734
Call (831) 479-6297 for more information
http://www.cabrillo.edu/programs

Program Description:
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 in Women’s Studies. 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
An Associate Degree requires 60 units appropriate to your educational goal, to include general education and at least 18 units in a major. Courses should be selected to meet the lower-division major preparation requirements at your intended transfer university these specific requirements can be found at www.assist.org for 4-year public institutions in California. Please see a counselor for advisement to ensure you are taking the best possible courses given your goal.

The department presents the following suggested model program for this major. The courses listed below may or may not be appropriate depending on your specific goal. Please see a counselor for advisement for transfer to any 4-year institution.

A.A. General Education

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<th>Course</th>
<th>Units</th>
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<td>WS 1</td>
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<td>WS 2</td>
<td>3</td>
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<tr>
<td>HIST 14</td>
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<tr>
<td>HIST 14H</td>
<td>3</td>
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<tr>
<td>SOC 5</td>
<td>3</td>
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Approved Electives Select 18 units from the following:

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<th>Course</th>
<th>Units</th>
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<td>ANTHR 2</td>
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<tr>
<td>ANTHR 2H</td>
<td>3</td>
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</tbody>
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Women’s Studies Courses

WS 1 Introduction to Women’s Studies
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Examines the major social, cultural, economic, and political forces which affect the lives of diverse groups of women in the U.S. Introduces central social scientific concepts in women’s studies. Examines feminist perspectives on a range of issues affecting women in the U.S., including gender socialization, violence, sexuality, family, education, and work.

Transfer Credit: Transfers to CSU; UC.

WS 2 Introduction to Women’s Studies: Global Perspectives
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.

Examines the major social, cultural, economic, and political forces which affect the lives of women from Africa, Asia, the Middle East, Latin America and the Caribbean. Introduces central social scientific concepts in women’s studies. Employs transnational feminist theory to analyze a range of social issues affecting women in developing nations including globalization, violence, immigration, work, family, and militarism.

Transfer Credit: Transfers to CSU; UC.
WS 5 La Mujer
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
Examines the impact of social institutions such as family, religion, work, and education on the daily lives of Chicanas/Latinas. Employs an interdisciplinary approach to understand Chicanas/Latinas’ history, contemporary social roles, and personal identity. Topics may include community involvement, political roles, cultural practices, and values.
Transfer Credit: Transfers to CSU; UC.

WS 7 Psychology of Women
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Recommended Preparation: PSYCH 1/1H.
Repeatability: May be taken 1 time.
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; UC.

WS 11 Feminist Theory and Methodology
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 and READ 100.
Repeatability: May be taken 1 time.
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; UC.

WORLD LANGUAGES

Business, English, and Language Arts Division
James Weckler, Division Dean
Division Office, Room 301
Nancy Stucker, Program Chair, (831) 477-3221
Aptos Counselor: (831) 479-6274 for appointment
Watsonville Counselor: (831) 786-4734
Call (831) 479-6400 for more information
http://www.cabrillo.edu/programs

World Languages Transfer Information
American Sign Language, Chinese, French, German, Italian, Japanese, 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. Cabrillo offers A.A. degree in Spanish.

High School Preparation: Any high school preparation in world language is desirable if the language is declared as a college major. Two years of high school foreign language is equal to 1 semester at the college.

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.

ACOSTA, EVA (1990) .................................. Counseling and Guidance
B.A., M.S., California State University, Sacramento

ALANCAIG, MARYC (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) .................... Dental Hygiene
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

ANDREWS, Spring ................................. Manager of Technology Applications
B.P.A., University of San Francisco

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

BAILEY-FOUGNIER, DENNIS L. (2009) ....... Vice President/Asst. Superintendent, Student Services
B.S., University of Oregon;
M.Ed, Wichita State University
Ed.D., Oregon State University (In Progress)

BAÑALES, 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., University of California, Santa Cruz.

BARKEY, CHERYL (2000) ........................... History
B.A., University of California, Santa Cruz,
M.A., Ph.D., University of California, Davis

BELLAINE, KIM (1991) ............................. Kinesiology
B.A., William Penn College; M.A., University of Connecticut

BERGAMINI, JEFFREY A. (2013) ................. Computer Science
B.S., M.S., California Polytechnic State University

BLAUSTEIN, JOSH (2005) .......................... Chemistry
B.S., California Polytechnic University, San Luis Obispo;
Ph.D., University of California, Santa Cruz

BOLTON, TAMÁ (2010) .............................. Director of Enrollment Services
A.A., College of Southern Idaho
B.A., Idaho State University
M.Ed., Oregon State University

BONE, DEBORA (1997) ............................. Stroke and Disability Learning
Center, Allied Health
B.A., Swarthmore College, Pennsylvania;
R.N., Ecole Le Bon Secours, Geneva, Switzerland;
Ph.D., University of California, San Francisco

BOOTH, MICHAEL (2007) .......................... Accounting
B.S., University of San Francisco
M.B.A., St. Mary’s College

BORGES, DAN (2011) ............................... Director of Information Technology
B.S., San Jose State University, San Jose, CA
M.S., Capella University, Minneapolis, MN

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

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., University of California, Irvine.

CAMARA, JASON (2002) ........................... Chemistry
B.S., Ph.D., University of California, Santa Cruz

CANTU, ARTURO (1992) ........................... Counseling and Guidance
B.S., M.S., California State University, Sacramento

CAPUTO, JOSEPH (2012) .......................... Mathematics
B.S., M.A., University of California, Davis

CARBONE, PAOLO (2008) .......................... Soccer Coach & Physical Education
B.A., University of California, Santa Cruz
M.A., Saint Mary’s College

CARDONA, LUZ (2008) ............................ Early Childhood Education
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

CARR, PHILLIP (2008) ............................ Criminal Justice
B.S., M.S., San Jose State University
CARTER, ERIC (1996) .................................. Culinary Arts and Hospitality Management
B.A., M.A., San Jose State University

CARTER, JOSEPH .................................. English
B.A., University of California, Santa Cruz;
M.A., Brown University

CASPERS, 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

CHINN, AURELIE T. (2002) ......................... Nursing 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

COLOMBANI, LAUREN (2012) ..................... Medical Assisting
B.S., University of Southern California

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
B.A., M.A., Pacific Oaks College

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

DASTAGIR, ZARMINA (2001) ...................... English as a Second Language
B.A., Kabul University, Afghanistan;
M.A., University of Northern Iowa, Cedar Falls

DeCOSSE, REGINA (1980) ......................... Dance
B.F.A., University of Utah

DESMET, MARK (2011) .......................... Mathematics
B.S., M.S., Western Washington University

DeSPELLER, LYNNE (1975) ........................ Psychology
B.S., M.A., Michigan State University, E. Lansing

DOMINGUEZ, ELIZABETH (2000) ................ Counseling, CAP
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

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, CONSEULO (1989) ..................... Spanish
B.A., Fac. Filosofía y Letras U.N.A.M.;
M.A., San Jose State University

FABBRI, E. VICTORIA (2008) ..................... Communications Studies
B.A., University of Guam
M.A., University of Hawai‘i

FABOS, KRISTIN, (2010) ......................... Director of Marketing & Communications
B.A., Santa Clara University

FIGUEROA, CARLOS (1999) ....................... Physics
B.A., University of Arizona;
Graduate Study, University of California, Santa Cruz

GALLAGHER-HEIL, Jean (2006) .................. Early Childhood Education
B.A., State University College of New York
M.A., Columbia University

GARCIA, MARIO (1999) .......................... Counseling and Guidance
B.S., M.A., California Polytechnic State University, San Luis Obispo

GARNER, WANDA L. (1986) ...................... Dean, Natural and Applied Sciences Division
A.A., Independence Community Junior College, Kansas;
B.S., Pittsburgh State University, Kansas;
M.S., University of Missouri, Rolla;
Graduate Study, Brigham Young University

GARRISON, WILLIAM (2006) ..................... Football/Kinesiology
B.A., California State University, Chico

GENTILE, MICHÈLE (SKYE) (2005) ................ Communication Studies
B.A., M.A., California State University, Hayward;
GIL, IRMA (1991) . . . . . . . . . . . . . . . . . . . . Counseling and Guidance
B.A., M.S., Sacramento State University

GRAULTY, JOHN (2011) . . . . . . . . . . . . . . . . . . . . Dean, Visual, Applied, & Performing Arts
B. of Music, Peabody Conservatory of Music;
M.M., New England Conservatory of Music;
M.Ed., Columbia University;

B.B.A., Loyola Marymount University;
M.A., California State University, Monterey Bay

GuilleN, OScar (2011) . . . . . . . . . . . . . . . . . . . . Assistant Director of Facilities Planning & Plant Operations
B.A., University of California, Santa Cruz

HalTeR, MAtheW (2012) . . . . . . . . . . . . . . . . . . . . . Biology (Human Anatomy & Physiology)
B.A., University of California, Santa Barbara
M.A., University of California, Berkeley

HammeR, GorDOn (1999) . . . . . . . . . . . . . . . . . . . . Photography
B.A., Yale University

HarVeLL, PAUL (2000) . . . . . . . . . . . . . . . . . . . . Economics
A.A., West Valley Community College;
B.S., Santa Clara University;
M.A., University of Chicago

HassLam, IA (2013) . . . . . . . . . . . . . . . . . . . . Division Dean, HAWK
B.Ed., Keele University, Staffordshire, England
M.A., University of Alberta, Edmonton, AB
M.B.A., University of Birmingham, Birmingham, England
Ed. D., State University of New York, Buffalo, N.Y.

Hassan, Mo (1999) . . . . . . . . . . . . . . . . . . . . Business
B.A., University of Kentucky;
M.B.A., Eastern Kentucky University

HodGeS, STEVE J. (1998) . . . . . . . . . . . . . . . . . . . Computer Science
B.A., M.A., University of California, Santa Cruz

HoFFman, CAROL (2008) . . . . . . . . . . . . . . . . . . . Biology
D.V.M., University of Sao Paulo
M.S., Ph.D., Cornell University

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IngeL, CaLaIs (2000) . . . . . . . . . . . . . . . . . . . . . Adaptive Computing
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Iniguez, FRANCISCO (2008) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Spanish
B.A., University of California, Davis
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JaCksoN, CARoLYN A.(2011) . . . . . . . . . . . . . . . . Articulation & Honors Transfer Program Academic Specialist/Director
B.A., M.A., San Jose State University

JaCksoN, JAY R. (1998) . . . . . . . . . . . . . . . . . . . Counseling and Guidance
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JoBe, Eddie (2001) . . . . . . . . . . . . . . . . . . . . . Children’s Center Teacher
A.S., Cabrillo College
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B.A., Taylor University
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JoNSoN, BARBARA (2013) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Nursing
B.S., California State University, Dominguez Hills
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Coursework, Brandman University, Monterey

JoNKeR, GENEFFA (2000) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . English
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KaUpp, RAYMOND (2007) . . . . . . . . . . . . . . . . . . . Business
B.S., San Diego State University;
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KeLLer, TOBIN (2005) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Art Studio
B.F.A., California College of the Arts;
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KeLLFEr, ONNIE (1987) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Kinesiology
B.A., Stanford University;
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KING, DAVID (2006) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Dance
B.A., University of California, Santa Cruz
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KraUSe, JOSEPH (1992) . . . . . . . . . . . . . . . . . . . . . Mathematics
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KreIn, BRADLEY (1994) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Mathematics
B.A., University of California, Los Angeles;
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LarTeR, SALVeTORIA (2000) . . . . . . . . . . . . . . Counseling and Guidance
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LeaL, JuLIo (1995) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . English
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Lii, JENNIFER (2001) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Psychology
B.A., University of California, Berkeley;
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LeGaKIs, BRiAN (2005). . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Art History
B.A., University of California, Davis;
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LeoN, VEroNiCA (2007) . . . . . . . . . . . . . . . . . . . . . Counseling and Guidance, EOPS
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LeoNArd, RHeA (2001) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Computer Science
B.S., San Jose State University
LEVI, ZERUBBA (2013) .......................... Chemistry
B.S., Gonzaga University
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LEWIS, VICTORIA (2004) ....................... Vice President/Assistant Superintendent, Administrative Services
B.S., M.B.A, California State University at Fresno

LIM, DENISE (1994) .................. Biology
B.S., University of California, Irvine;
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LOBATO, ALFONSO (2001) .................. Mathematics
B.A., Occidental College;
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LUCERO, ANNE (2001) .................. Nursing
B.A., California State University, Chico;
Nursing Program, California State University,
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LUNA, CONNIE .......................... Radiologic Technology Clinical Coordinator
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LUNDOQUIST, VERONICA (2008) ........ Mathematics
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MACEDO, M. TERESA (2005) ........ Sociology
B.A., University of California, San Diego;
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MAGEE, BELITA (1999) ........... Counseling and Guidance
B.A., California State University Long Beach;
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MALONE, JASON (2008) .................. English as a Second Language
B.A., M.A., Southern Illinois University

MANGIN, MICHAEL (1997) ........ History
B.A., University of California, Berkeley;
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MARCOCCIA, GARY (1998) ........... Engineering Technology
B.S., University of New York;
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MARCOPULOS, ANTHONY (2000) .......... Kinesiology
B.A., California State University, Stanislaus;
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MARSHALL, THOMAS (2000) ............ English
B.A., University of California, San Diego;
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Ph.D., University of California, Santa Cruz

MARTIN, TERA (2001) .................. Learning Assistance Coordinator, Watsonville Center
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MATERA, MICHAEL (2013) ............... Computer and Information Systems
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MAYO, RACHEL (1989) .................. Dean of Education Centers
B.A., M.A., University of the Pacific;
Doctoral Study, University of Barcelona, Spain

McANDREWS, LISA (1989) ........... Horticulture
B.A., Stanford University;
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McCAWLEY, LOREE (1980) ............ Director, Personnel and Human Resources
B.A., M.P.A., San Jose State University

McCULLOUGH, JOSEPH (2001) .......... Physics
B.A., Johns Hopkins University;
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McfARLAND, ROBIN (1998) .......... Biology
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McKENZIE, DUSTIN (2008) ........... Anthropology
B.A., M.A., University of California, Santa Barbara

McKINNON, MERRY E. (1998) .......... Counseling, Disabled Student Programs & Services
B.A., San Francisco State University;
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MENDOZA, GRACIANO (2010) .......... Director of Business Services
B.A., M.B.A., Santa Clara University

MEYER, LISA (1998) ................... Mathematics
A.A., Cabrillo College,
B.S./M.A.T., University of California, Davis

MEYER, PATRICK (1998) ............... Program Chair and Instructor, Human Services
B.A., Humboldt State University
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MORGALI, DANIEL (2004) ........... Mathematics
B.S., University of the Pacific;
M.S., California State University, Hayward,
Graduate Study, University of California, Santa Cruz

MORGAN, REBECCA (2013) .......... Psychology
B.A., Boston College
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MORRISON, CHARLOTTE (2005) ........ Communication Studies
B.A., M.A., Western Washington University

MORTON, Michelle ....................... Instruction Librarian
B.A., M.A., University of New Mexico
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Ph.D., University of California, Santa Cruz

MULLIN, TERRY (2013) ............... Accounting
B.A., Augustana College, Rock Island, IL
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MURRAY, DALE (1977) .............. Athletic Director, Kinesiology
A.A., West Hills College;
B.S., California State University, Hayward;
M.A., California State University, Long Beach
NAVARRO, ADELA (2005) ...................................... English
B.A., University of Redlands;
M.F.A., Vermont College of Norwich University;
Ph.D., Western Michigan University

NAVARRO, JAMES (DIEGO) (2005) .......................... Academy for College Excellence
B.A., Antioch University;
M.B.A., Harvard University

NAPIER, JOSEPH (2001) .......................... Counseling, Disabled Student Programs and Services
B.A., Saint Peter's College;
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NAKANISHI, DAWN (1997) ......................... Art-Studio
A.A., De Anza College;
B.A., M.F.A., San Jose State University;
M.A., San Diego State University

NAPOLITANO, JOSEPH (2001) .................. Counseling, Disabled Student Programs and Services
B.A., Saint Peter's College;
M.A., University of San Francisco

NASSAR, EDWARD (1985) ....................... Anatomy
B.S., M.S., University of Arizona;
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NATURALI, STACEY (2006) ......... Psychology
B.A., M.A., California State University, Hayward

NORRISS, WENDY (2000) ...................... Digital Media
B.A., M.A., San Francisco State University;
Spanish/American Institute, University of Colorado

NORTON, LEONARD (2006) .................. Stroke and Disability Learning Center/Kinesiology
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NOTO, JOANNE (1989) ......................... Dental Hygiene
B.S., University of California, San Francisco;
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NUGENT, JOSEPH (2001) .................. Director of Facilities Planning & Plant Operations
B.A., M.A., San Francisco State University;
Spanish/American Institute, University of Colorado

NUSSBAUM, WILLIAM (2002) .............. Chemistry
B.A., M.S., University of the Pacific

ORR, MARTHA (1990) ...................... Health Services Nurse
A.A., College of DuPage;
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PADEN, CASSANDRA (2000) ................... English
A.A., Evergreen Valley College;
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PANZARDI, JO-ANN (1995) ...................... Engineering
B.S., Polytechnic University, Brooklyn, New York;
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PARRISH, EDWARD (2002) ................... Computer Science
A.A., West Valley College;
B.A., University of California, Berkeley;
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PEBROUGH, MICHAEL (2001) .................... History
B.A., Indiana University;
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PETRICK, BRIAN (2013) ...................... Anthropology
B.A., University of Kansas
M.A., University of California, San Diego

PHELPS, NANCY (2007) ..................... Reading Center Director/Instructor
B.A., California State University, Long Beach
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PIRCHIO, ROY (2008) ...................... Fiscal Services Manager
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PONCE, FRANCISCO (1988) .................... Counseling and Guidance
B.A., University of California, Santa Cruz;
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POTKIN, MARTHA (MARTY) (2006) .......... Nursing
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PUENTE, Rodolfo (RUDY) ..................... Counseling and Guidance, PUENTE
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PUTNAM, DIANE (1998) ..................... Writing Center
B.A., University of California, Santa Cruz;
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RAMOS, REBECCA (2005) ..................... Art-Studio
B.F.A., California College of Arts & Crafts, Oakland, CA;
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RAMOS, VICTOR (2008) ..................... Mathematics
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REGALADO RODRIGUEZ, MARGERY (2005) .................. Dean, Counseling and Educational Support Services
B.A., M.A., Sonoma State University;
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REGARDZ, BETH (1997) ................................. Digital Media
B.A., Stanford University
REYNOLDS, DAVID (2005) ............................. Mathematics
B.A., University of California, Santa Cruz;
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RIDER, RAY (1998) ................................. Technical Services Manager
A.S., Cabrillo College
RINK, ALICE (1997) ................................. Nursing
A.A., Fullerton College;
B.S.N., California State University, Los Angeles;
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OBINS, MICHAEL (2012) ............................... Director of Purchasing, Contracts & Risk Management
B.A., University of California, Santa Cruz
RODRIGUEZ, GABRIELA (2000) .......................... Mathematics
B.A., M.A., University of California, Santa Cruz
RODRIGUEZ, JORGE (2010) ............................. Custodial Supervisor
A.A., San Jose City College
ROMERO, ALVARO (ALBI) (2007) ....................... Chemistry
B.S., California Polytechnic State University
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ROMERO, GEORG (1998) .............................. Director of Library/Learning Resources
B.A., University of California, Santa Cruz;
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ROTHWELL, J. DAN (1986) .............................. Communication Studies
B.A., University of Portland, Oregon;
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SANBORN, Pamela (2010) .............................. Medical Assistant Instructor/Program Chair
A.S. Cabrillo College;
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SCHESSLER, STEVEN (2012) .......................... English
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SCHOLAR, DEIRDRE (2011) ............................. Geography/Meteorology
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SCHULTZ PÉREZ, BARBARA (1997) ............... Counseling and Guidance
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SCHWARTZ, DAVID (1986) ............................. Geology/Oceanography
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SCOTT-CURTIS, CONRAD (2005) ...................... English
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SCOTT-CURTIS, LETITIA (1996) ...................... English
B.A., University of California, Davis;
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SHAW, PETER (2005) ................................. Horticulture
B.S., California Polytechnic State University;
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SHEFTMAN, DAVID (2000) ............................. English
B.A., Marist College, New York;
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SIMCIK, LUKE (1997) ................................. Mathematics
B.S., U.S. Air Force Academy;
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SISKIN, H. JAY (1998) ................................. French
B.A., College of Wooster, Ohio;
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SLATER, SUSAN (1997) .............................. Culinary Arts and Hospitality Management
A.S., Cabrillo College;
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Diploma, Le Cordon Bleu, Paris, France
SMELTZER, ANN (1993) ............................... Director/Instructionalod Technology
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SMITH, REBECCA ................................. Philosophy
B.A., University of California, Los Angeles
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SPANGLER, NANCY (1995) .......................... Children’s Center Teacher
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SPENCER, Debra (2007) ............................... Learning Disability Specialist
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SQUATRITO, FRED (1975) ........................... Music
B.A., San Jose State University, Santa Cruz;
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STALEY, STEPHANIE (1994) ......................... Librarian
B.A., University of California, Santa Cruz;
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STAMOS, BILL (2000) ............................... Counseling and Guidance
B.A., University of California, Santa Cruz;
M.S., San Jose State University
A.A., Chabot College;
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STRUNK, MICHAEL (2005) ........................... Music
B.A., University of California, Santa Cruz;
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STUCKER, NANCY (2008) ............................ Spanish
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SULLIVAN, DAVID (1997) ............................. English
B.A., University of Chicago, Chicago
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TAN, YVES (2004) ................................. Biology
B.A., University of California, Berkeley;
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TAPERO, SUSAN (2005) ............................. Director, MESA Program
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THOMAE, TERESA (1996). Director, Small Business Development Center
B.A., San Jose State University
B.S., University of California, Davis
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TREVINO, DAVID (1984). Director, E.O.P.S.
A.A., Sacramento City College;
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TUCKER, MERRITT (1999). Stroke and Disability Learning Center/Adaptive Computing
B.S., M.A., University of Maryland
TZIMBAL, TOOTIE (2012). Assistant Director of Financial Aid
A.A., Ohlone College;
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VAN METER, FRANCINE (1998). Teaching and Learning Center
A.A./A.S. Cabrillo College;
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VERED, JENNIFER (2013). Computer Applications & Business Technology
B.A., University of California, Santa Cruz
VIGLIENZONI, DAVID (1971). Mathematics
B.S., Santa Clara University;
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VOGEL, CHRISTY (1996). Chemistry
B.S., Fort Lewis College, Colorado;
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WALD MARCIE (1997). Counseling and Guidance
M.S.W., Bryn Mawr College Graduate School of Social Work and Social Welfare
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WECKLER, JAMES. (2005). Dean, Business, English, and Language Arts Division
B.A., Utah State University;
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WELCH, KATHLEEN S. (2000). Vice President, Instruction and Assistant Superintendent
B.S.N., University of Oregon Health Sciences Center;
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Ph.D., University of California, Los Angeles
WEST, SHELLEY (1999). Accountant, Business Services
B.S., San Jose State University;
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B.A., Georgia Southern University;
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WINDER, SYLVIA (2000). Librarian
B.A., University of California, Davis;
Graduate Study, University of the Pacific;
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ZAGORSKA, ANNA (2008). Counseling and Guidance
B.A., University of California, Santa Cruz
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