“Learning is not attained by chance; it must be sought for with ardor and attended to with diligence.”

-Abigail Adams, 1780
Our Mission:

Cabrillo College empowers students to be effective communicators, critical thinkers, and responsible world citizens. With a commitment to quality and equity, we connect all learners to pathways that propel them from where they are to where they aspire to be, including: academic, personal, and career growth.

Our Core 4 Competencies:

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

Ed Banks
AREA VII

Leticia Mendoza
AREA V

Christina Cuevas
AREA III

Gary Reece
AREA II

Alan J. Smith
AREA VI

Rachael Spencer
AREA IV

Donna Ziel
AREA I
College Officials

Matt Wetstein .................................................. President and District Superintendent
Kathleen Welch .............................. Vice President, Instruction and Assistant Superintendent
Suzanne Gochis ......................... Vice President, Student Services and Assistant Superintendent
Victoria Lewis ................................. Vice President, Administrative Services and Assistant Superintendent
Jamie Alonzo ......................................... Dean, Natural and Applied Sciences Division
Michelle Donohue .................................................. Dean, Student Services
John Graulty ................................... Dean, Visual, Applied, and Performing Arts Division
Cynthia FitzGerald .................................................. Associate Dean, HAWK Division
Paul Harvell ................................... Acting Dean, Human Arts & Social Sciences
Rachel Mayo ................................ Dean, Education Centers and Online & Innovative Learning
Isabel O’Connor ............................................. Dean, Guided Pathways
Mark Ramsey .................................................. Associate Dean, HAWK Division
TBD ........................................ Dean, Counseling and Educational Support Services
James Weckler ................................... Dean, Business, English, and Language Arts Division
Terrence Willett ................................... Dean, Research, Planning, and Institutional Effectiveness
Gerlinde Brady ................................... Dean, Career and Technical Education and Workforce Development
Kip Nead .................................................. Director, Admission and Records
Tootie Tzimbal ............................................. Director, Financial Aid
Carolyn Jackson ................................ Director, Articulation and Honors Transfer Program
Karen Reyes .................................................. Director, Student Resource & Support Network
TBD .................................................. Director, Student Equity & Success
Georg Romero ................................... Director, Library/Learning Resources
Graciano Mendoza ................................... Director, Business Services
Carrie Mulcaire .................................................. Director, Grants Development
Spring Andrews .................................. Director, Information Technology
Kristin Fabos .................................................. Director, Marketing and Communications
Angela Hoyt .................................................. Director, Human Resources and Labor Relations
Jon Salisbury .................................................. Director, Facilities Planning and Plant Operations
Eileen Hill ................................ Executive Director, Cabrillo College Foundation
Teresa Thomae .................................................. Director, Small Business Development Center
Divisions and Departments

BUSINESS, ENGLISH, AND LANGUAGE ARTS
Dean: James Weckler
Academy for College Excellence
Bilingual and Bicultural Studies
Computer Applications/ Business Technology
English as a Second Language
World Languages

COUNSELING AND EDUCATIONAL SUPPORT SERVICES
Dean: TBD
Accessibility Support Center (ASC)
Assessment
Counseling
Dual Enrollment
International Students
Learning Skills
Puente Program
Student Success Grant
Transfer and Career Centers

EDUCATION CENTERS AND ONLINE AND INNOVATIVE LEARNING
Dean: Rachel Mayo
Watsonville Center and Remote Sites
Teaching and Learning Center
Distance Education Learning Communities Center

NATURAL AND APPLIED SCIENCES
Dean: Jamie Alonzo
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

GUIDED PATHWAYS
Dean: Isabel O’Connor

OFFICE OF CAREER AND TECHNICAL EDUCATION AND WORKFORCE DEVELOPMENT
Dean: Gerlinde Brady
Cooperative Work Experience

HEALTH, ATHLETICS, WELLNESS, AND KINESIOLOGY
Associate Dean: Cynthia FitzGerald
Adaptive Physical Education
Allied Health
Dental Hygiene
Human Services
Medical Assisting
Nursing Education
Radiologic Technology
Stroke and Disability Learning Center

VISUAL, APPLIED, AND PERFORMING ARTS
Dean: John Graulty
Art History
Art Photography
Art-Studio
Dance
Digital Media
Music/Musical Technology
Recording Arts
Theatre Arts

HUMAN ARTS AND SOCIAL SCIENCES
Acting Dean: Paul Harvell
Anthropology
Communication Studies
Culinary Arts and Hospitality Management
Early Childhood Education
Economics
Education
Geography
History
Human Services
Latin American and Latino/a Studies
Meteorology
Philosophy
Political Science
Psychology
Public Safety
Sociology
Women’s Studies

Associate Dean: Mark Ramsey
Athletics
Kinesiology
Health Science

Associate Dean: Mark Ramsey
Athletics
Kinesiology
Health Science

Associate Dean: Mark Ramsey
Athletics
Kinesiology
Health Science

Associate Dean: Mark Ramsey
Athletics
Kinesiology
Health Science
Academic Calendar
2018-2019

FALL SEMESTER

August 20, 2018 - December 15, 2018

August 20 ................................................................. Fall Semester begins for Staff and Faculty (FLEX)
August 27 ............................................................................ First day of classes
September 3 ........................................................................... Labor Day Holiday
September 8 ...................................................................... Deadline to register for a full-term course
September 8 ......................................................... Deadline to drop a full-term course with a refund or reversal of charges
September 9 ................................................... Last day to drop a full-term course without an academic record of “W”
September 10 ................................................................... Census Day attendance check for full-term courses
October 6 ................................................................. Deadline for pass/no pass grade option in a full-term course
November 12 .................................................................. Veterans Day (Holiday)
November 17 ................................................................ Last day to withdraw from a full-term course
November 22-23 .......................................................... Thanksgiving (Holiday)
November 26 .................................................................. Last day to petition for fall degrees and certificates
December 10-15 .................................................................. Final Examinations
December 15 ....................................................................... Fall Semester ends

SPRING SEMESTER

January 18, 2019 - May 25, 2019

January 18 .................................................................. Spring Semester begins for Staff and Faculty (FLEX)
January 28 ........................................................................... First day of classes
February 9 ................................................................. Deadline to register for a full-term course
February 9 ................................................................. Deadline to drop a full-term course with a refund or reversal of charges
February 10 ............................................................. Last day to drop a full-term course without an academic record of “W”
February 11 ............................................................. Census Day attendance check for full-term courses
February 15, 18 .................................................. Presidents’ Day Holidays Observed
March 2 ........................................................................... Presidents’ Day Holidays Observed
March 25 - March 30 Spring Break
TBD ........................................................................... Last day to petition for spring degrees and certificates
April 27 ........................................................................... Last day to withdraw from a full-term course
May 20-25 ........................................................................... Final Examinations
May 24 ................................................................................ Graduation
May 25 ........................................................................... Spring Semester ends
May 27 .................................................................................. Memorial Day (Holiday)

SUMMER SESSIONS (tentative)

June 17, 2019 – August 9, 2019

June 17- July 12 ................................................................. Four-week session
June 17 – July 26 ................................................................. Six-week session
June 17 – August 9 .............................................................. Eight-week session
July 4 .................................................................................. Independence Day (Holiday)

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

Residents of Santa Cruz and Monterey counties living in the San Lorenzo, Santa Cruz, and Watsonville high school districts approved formation of a two-year college district in 1958. The 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 opened for classes in the fall of 2012, providing classes in Career Technical Education focused on sustainable environmental practices and technology. The Emergency Medical Technician program moved to the Solari Center in fall 2015. Enrollment at the Watsonville Center has grown to almost 2,000 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 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 was replaced with the state-of-the-art Solari Green Technology Center in 2012.

The Arts Education Classrooms project and classrooms for 2D and 3D art opened in fall 2008, and the performance classrooms, two theatres and recital hall opened in 2009.

The new Health and Wellness Center on the Aptos campus opened 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 empowers students to be effective communicators, critical thinkers, and responsible world citizens. With a commitment to quality and equity, we connect all learners to pathways that propel them from where they are to where they aspire to be, including: academic, personal, and career growth.

VISION STATEMENT
Cabrillo College improves the world, one student at a time.

VALUE STATEMENTS
Learning: We provide an excellent and safe learning environment that enhances a student’s experience in the accumulation of knowledge, the sharing of ideas and the celebration of achievement both within the classroom and throughout the college’s community of learners.

Student Focus: We commit to creating the best educational environment for students, providing quality programs and services that promote their diverse and evolving needs as they progress toward their individual educational goals.

Collaboration: We believe in the open exchange of ideas that is nurtured through respect, trust, and consideration of differences, demonstrated by our shared commitment to the mission of Cabrillo College.

Esteem: We strive to hold each member of the Cabrillo community in esteem, based on the far-reaching potential of each individual, the diverse and often unrecognized journeys and achievements of each person, and the fundamental dignity of each human being.

Equity: Equity at Cabrillo College is the commitment to cultivate an inclusive teaching and learning environment by providing equitable support, access, and opportunities for success emphasizing historically underrepresented and emerging student populations.

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 Core 4 are the student learning outcomes for all degrees in transfer, the GE program, and outcomes for the institution. That means that the college is committed to fulfilling this promise: When our students have met the requirement for the A.A. or A.S. degree or have completed the general education sequence, they will be competent in:

1. Communication: Reading, Writing, Listening, Speaking, and/or Conversing.
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving.

STUDENT LEARNING OUTCOMES
Student Learning Outcomes (SLOs) define what students can do when they have completed a course, a certificate, or a degree. They are the goals and skills students have achieved through their study. The four college core competencies are the student learning outcomes for our A.A. and A.S. degrees, the general education sequence, and all departmental degrees. 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 give breadth and coherence to the students’ educational experience. General education is that part of a student’s education that encompasses the common knowl-
edge, appreciations, attitudes, and skills needed to become effective as an educated person in our society, including awareness, appreciation, and respect for diverse cultures. General education is complementary to, but different in emphasis and design from, specialized training for a job, a profession, or advanced study in a specific field of knowledge.

**Basic Skills**

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

**Learning Skills**

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

**Noncredit Classes**

Noncredit courses are repeatable, free, and do not carry an enrollment fee. They focus on skill attainment rather than grades or units and are not affected by the 30 unit basic skills limitation. The skills covered in these classes range from elementary skill levels to pre-collegiate and can provide a bridge to other educational or career pathways.

The 300 level classes are designed to prepare students for credit programs, primarily through ESL and Basic Skills. The 400 level classes are designed to prepare students for employment, primarily through CTE preparation and certification. The 500 level classes are designed to provide educational opportunities for older adults, parents, and students in other areas of interest.

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**CABRILLO EXTENSION**

The Cabrillo Extension Office provides fee-supported enrichment classes, Motorcycle Safety Training, online classes, special events, Summer Youth Program, Cabrillo Arts workshops, Corporate Training, and the scheduling of college facilities for community and college use. For information call (831) 476-6331 or go to the Cabrillo Extension website at www.cabrillo-extension.org.

**Cabrillo Extension Classes**

Approximately 750 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.edu/services/extension/.

**Use of College Facilities by the Public**

The College encourages the use of school facilities by public agencies and community organizations. Over 1,200 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. For information on renting the Performing Arts venues, call (831) 479-6146.

**Corporate Training**

Cabrillo College develops programs to meet the training needs of business, industry, government, and labor. We also offer meeting facilitation, coaching, and consulting services. For information call (831) 476-6331 or go to the Corporate Training website at www.cabrillo-corporatetraining.org.

**SMALL BUSINESS DEVELOPMENT CENTER**

The Santa Cruz Small Business Development Center (SBDC) offers no cost business counseling, technical assistance, and referral services for businesses in Santa Cruz County. Participants 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.santacruzsbdc.org. The SBDC is operated by Cabrillo College under contract with the U.S. Small Business Administration, and Humboldt State University.
DISTANCE EDUCATION

The Distance Education program offers students flexibility and access to Cabrillo College courses which can be taken either fully online, or partially online (hybrid). When students take an online class, they log in to a learning management system via the Internet to access and complete their 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 they are online or on-campus.

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 can use their own computer or a campus lab computer to access and participate in online courses. Check the instructor's web directory page for additional information about how to access the course and whether one or more on-campus meetings are required. Online courses can be found on the Distance Education website at www.cabrillo.edu/services/disted. For more information, contact the Teaching and Learning Center at (831) 479-5030.

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) 479-6100.

SUMMER SESSION

Summer sessions supplement the primary college semesters of fall and spring. The courses scheduled are generally designed to meet basic course requirements and prerequisites and to provide occupational training for employment. Recent high school graduates may enroll in summer sessions for an early start in college work. Students who will be in high school during the academic year following the summer session may, with the consent of their high school principal or counselor and parent or guardian, enroll in college summer courses. There may be limitations on out-of-state students, who must meet the same residence qualifications of regular session students.

WATSONVILLE CENTER

The Watsonville Center is located at 318 Union St. in downtown Watsonville, next to the City Plaza. 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. In addition, students may complete all requirements for the Associate Degree for Transfer in Business, the Skills Certificate in Human Services Generalist Practice, several Certificates of Achievement in Early Childhood Education and Construction/Energy Management, and certification as an Emergency Medical Technician. 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. Admissions & Records and Financial Aid are open Monday through Thursday, 9:00 a.m. to 6:00 p.m., and Friday 9:00 a.m. to 12:00 p.m. The main information number is (831) 786-4700. Further information can be found at http://www.cabrillo.edu/services/watsonville.

NON-DISCRIMINATION 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:

Samantha Folb, J.D., Title IX Coordinator: (831) 477-3373
Victoria Lewis, ADA Coordinator: (831) 479-6406
Angela R. Hoyt, J.D., Section 504 Coordinator: (831) 479-6234
Angela R. Hoyt, J.D., Director of Human Resources and Labor Relations, Complaints of Unlawful Harassment, Discrimination, and/or Retaliation: (831) 479-6234
Dr. Michelle Donohue, Dean, Student Services: (831) 477-3584

The College recognizes its obligation to provide overall program accessibility for students with disabilities. Contact the Accessibility Support Center at (831) 479-6370 to obtain information about support services and resources for persons with disabilities on campus.

General information 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
50 United Nations Plaza, San Francisco, CA 94102
Phone: (415) 486-5555, Fax: (415) 486-5570
Email: 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 constituirá 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, comuníquese con:

Samantha Folb, J.D., Coordinator: del Título IX: (831) 477-3373
Victoria Lewis, ADA Coordinator a de ADA: (831) 479-6406
Angela R. Hoyt, J.D., Coordinator a del Sección 504: (831) 479-6234
Angela R. Hoyt, J.D., Directora de Recursos Humanos y Relaciones Laborales, Queja por Discriminación/Acoso/ Represalias: (831) 479-6234
Dr. Michelle Donohue, Oficina de Asuntos Estudiantiles: (831) 477-3584

Cabrillo reconoce su obligación de proveer accesibilidad general a los programas para los estudiantes con incapacidades. Comuníquese con el Centro de Apoyo de Accesibilidad al (831) 479-6370 para obtener información sobre los servicios de apoyo y recursos para personas con discapacidades en el campus.

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
Office for Civil Rights, San Francisco Office
U.S. Department of Education
50 United Nations Plaza, San Francisco, CA 94102
Phone: (415) 486-5555, Fax: (415) 486-5570
Email: 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 the Title IX Coordinator at (831) 477-3373.

DRUG–FREE CAMPUS POLICY

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

SMOKE–FREE CAMPUS POLICY

It is the policy of the Cabrillo College Governing Board to promote a safe and healthy campus environment by reducing the health risks associated with smoking. To meet this obligation, Cabrillo College District has a smoke-free environment policy that covers all individuals on the Cabrillo College locations but not limited to students, faculty, staff, and visitors. This policy applies to all College buildings, vehicles, or facilities where College programs or services are provided (pursuant to Board Policy 3570).
THE CABRILLO COLLEGE FOUNDATION

The Cabrillo College Foundation's mission is to raise funds supplementary to public tax dollars for the support and benefit of Cabrillo College. Since 1962, the Cabrillo College Foundation has raised over $63 million in private gifts to enhance Cabrillo's educational and community service programs.

Community members, college staff, faculty, and Cabrillo trustees serve on the foundation's 29 member board, representing all geographic areas of the community. The foundation board and supporters of Cabrillo College provide private support for scholarships, equipment, programs, and facilities.

The generous donations for the 2016-2017 academic year were over $2.4 million for Cabrillo's programs from 3165 donors. In addition to numerous campaigns and initiatives each year, the Cabrillo College Foundation supports the following important programs detailed below.

The Cabrillo College Foundation has one of the largest scholarship programs in California for community college students and distributed 1,256 scholarships equaling $1,425,024 to assist financially disadvantaged and academically promising students last year. The Foundation provides meaningful support through the Women's Educational Success program which awards over $68,000 annually in emergency cash grants, and the Cabrillo Advancement Program (CAP), a scholarship and support program designed to increase the academic success of high risk, low income students from local middle schools and high schools. Faculty and staff receive support through our Faculty & Staff Grants program, providing $67,000 annually to enhance student learning. In addition, the Cabrillo College Foundation also provides support to over 186 college programs and departments. The Cabrillo College Foundation is a not for profit 501(C)(3) organization. The foundation is further classified as a public charity as described in sections 509(a)(1) and 170(b)(1)(A)(vi) of the Internal Revenue Code.

For more information:
Eileen Hill, Executive Director
Cabrillo College Foundation
6500 Soquel Drive, Aptos, CA 95003
Tel: (831) 479-6338
E-mail: foundation@cabrillo.edu
Welcome Center

The Welcome Center is a full-service center dedicated to assisting students and the community by providing information and front counter support for the offices of Admissions & Records, Financial Aid, Student Accounts, and Student Life.

Services Provided

• Admissions and Records
• WebAdvisor log-in issues
• Add/Drop assistance

Financial Aid

• E-Forms assistance
• Submit documentation
• California Promise Applications

Student Accounts

• Make in-person payments
• Staff parking permits
• BankMobile assistance

Student Life

• Student parking permits
• Student Activity Cards
• Movie ticket sales
• Bike locker rentals
• Book locker rentals
• Vendor requests

Registration Enrollment Priority

Priority registration is 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. Therefore, students who have completed orientation and assessment, developed an education plan, declared a major and maintained good academic standing will be granted higher priority for registration.

The Admissions & Records Office notifies students of their registration dates and times by email. The information is also available to students via WebAdvisor.

Priority Groups:

A. Veterans, Foster Youth (and former foster youth), students in the following programs: Extended Opportunity Program and Services (EOPS), Accessibility Support Center, and CalWorks
B. Intercollegiate Student Athletes
C. Continuing students with 30-99.9 Cabrillo units who have completed orientation, assessment, an education plan, declared a major, and are in good standing
D. Continuing students with .01-29 Cabrillo units (Freshman) who have completed orientation, assessment, an education plan, declared a major, and are in good standing
E. Running Start participants (New students graduating from local high schools who have completed orientation, assessment, an education plan, declared a major, and are in good standing)
F. New students and re-entering students who have completed orientation, assessment, an education plan, declared a major, and are in good standing
G. Dual Enrollment K-12 students who have completed orientation, assessment, an education plan, declared a major, and are in good standing
H. Applicants within the past year who did not enroll who have completed orientation, assessment, an education plan, declared a major, and are in good standing
I. Continuing, new, re-entering and personal development students who did not complete orientation, assessment, an education plan, declare a major, and/or are not in good standing, and/or have completed 100 or more Cabrillo degree applicable units
J. Dual enrollment K-12 students who did not complete orientation, assessment, an education plan, declare a major, and/or are not in good standing.

Additional Details

Allowed Exceptions Include the Following:

An exception to the 100 unit limit is made for students enrolled in the high-unit majors listed below as long as they are making satisfactory progress toward their degree:

- Astronomy: AS degrees
- Biology: AS and AS-T degrees
- Business: AA and AS-T degrees
- Chemistry: AA and AS degrees
- Computer Science: AS degrees
- Dental Hygiene: AS degree
- Engineering: AS degrees
- General Science: AS degrees
- Geology: AS and AS-T degrees
- Mathematics: AS and AS-T degrees
- Nursing: AS degree
- Physics: AS and AS-T degrees
- Radiologic Technology: AS degree

Foster youth and former foster youth who are 24 years or less are exempt from losing registration priority based on 100 units or more or for
failing to meet minimum academic standards.
Units earned at other colleges and universities, from AP, Military, CLEP, etc., are not considered in determining registration priorities.

Options for Appealing
If a student loses priority registration based on exceeding the 100-unit limit, or being placed on academic or progress probation 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. The appeals process is as follows:
- Complete the A&R Appeal eForm for Admissions & Records,
- Complete the comment section of the eForm explaining why registration priority should be reinstated,
- Provide documentation as to the extenuating circumstance or significant academic improvement,
- Submitted appeals will be reviewed and a decision will be communicated to the student using the e-mail address listed in WebAdvisor.

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 a high school diploma. All non-high school graduates should request special counseling from the Counseling Department.

Admission of Minor Students Without High School Diplomas–Dual Enrollment
The Cabrillo College Governing Board authorizes the enrollment 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 200 or 300 series are not considered 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.

Dual Enrollment Policy:
- Dual Enrollment Students under age 18 may NOT enroll in 200 or 300 level courses, or any basic skills/pre-collegiate courses, except during summer sessions.
- Students enrolled in K-8 grade districts may attend Cabrillo College for advanced scholastic courses, but only as part-time students. Those courses that are designed for students at that specific grade and age level (academic camps for young students’ children’s theater, etc.).
- Students wanting to enroll in a math or English course, must take the Assessment Test.
- Course prerequisites must be met prior to registering.

Student Responsibilities:
- You must register for approved classes listed on the front of your Dual Enrollment form only. Registering for non-approved classes may result in coursework not being accepted at your high school.
- Dual Enrollment students shall conform to the College's academic rules and regulations and the code of conduct expected of all college students.
- You are responsible for reviewing and abiding by all academic policies as listed in the Schedule of Classes and College Catalog.
- If you are enrolled in more than 11 units, you are responsible for all fees associated with those courses.
- You are expected to meet all College deadlines such as dropping by established deadlines, as well as submitting any class assignments on time.
- Attendance is required. No one will call if you miss a class. It is important for students to adhere to College's Attendance Policy.
- You are required to request that your official Cabrillo College transcript be sent to your current school as needed. This is not an automatic process.
- You are responsible for purchasing any books or supplies that are required for each course.

Parent or Guardian Information:
- Dual enrollment students are treated like every other college student. The rules regarding student records are governed by the Family Education Rights and Privacy Act (FERPA). Academic information is only released with the written consent of the student.
- Please note: Your child will be exposed to a diverse population in educational programs designed for the adult learner, which may involve sensitive topics that might be considered controversial or offensive to some. Your signature on the K-12 Minor Student Statement of Understanding form acknowledges your receipt of this information and stipulates your permission for your child to enroll in a college level course and participate in all required activities that may include field trips off campus.
- Students will receive college credit for all courses taken and the grades will become part of their official college record. Poor grades can affect their academic future in such areas as admission to colleges/universities, eligibility for financial aid, eligibility for athletics, and academic probation.
- Parents are not allowed to be present in the classroom unless they are registered for that class.
• Instructors are not responsible to inform parents when classes are canceled at the last minute or when the class ends prior to the appointed time.

Rights of Access:
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. In accordance with this regulation, a student's college record (including their Cabrillo transcript) will be released to the parents only with the written consent of the minor student.

Students can request official transcripts online and/or view on WebAdvisor.

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 “non-residents,” 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. For more information, please refer to the Admissions & Records website at www.cabrillo.edu.

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 ACE, AMAP, Honors, Puente, and STARS. 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.

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

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

Applications for cross enrollment for CSUMB available at: csumb.edu/planning/take-class-uc-or-community-college and for UCSC at http://registrar.ucsc.edu/forms/students/cross-enrollment.pdf.

*Note: due to impaction, SJJSU will no longer accept students for cross-enrollment programs.
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 the fall semester is July 1. The deadline for the spring semester is December 1.

• 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 $19,056 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.

*Exceptions: Students with B, H, or J visas need only submit the application and the $60 application fee. This also applies to F-1 students with I-20s from other colleges who are studying part-time.

Rules and Regulations

• Payment of Tuition: Students are responsible for the tuition on all classes for which they register. Failure to pay before the end of the second week of classes will result in the student being unable to withdraw, register for additional classes, or register for following terms.
• 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, Planning for Success 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 the Transfer and Career Center. Phone (831) 479-6200 or e-mail international@cabrillo.edu.

STUDENT SUCCESS AND SUPPORT PROGRAM

The Student Success and Support Program at Cabrillo College is a series of services and activities that move a student towards completion and success: orientation to college, assessment for course placement, and educational planning in the form of career identification, identification of a program of study/academic major, and an education plan that moves a student from the first class through the completion of the degree or certificate. These services are required for incoming students per the Student Success Act of 2012.

Research shows that there is increased academic success and college completion by students that have completed these services. Research also shows that students that attend full-time (12+ units/semester) also complete college at a higher rate. Financial aid can help a student make that effort. Students who complete these initial core services (orientation, assessment, and educational planning) will receive priority registration as a continuing student. Those who do not complete these services will drop to the end of the registration schedule. This decreases the chances of registering for the courses needed to complete the education plan in the hoped-for time frame.

The Education Plan, both an initial Abbreviated Education Plan and the following 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 (CG 54) or through other college options. Identifying a career goal will help the student identify an Educational Goal–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 education-
al goal. It will move the student towards completion of their goal more quickly. 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 Comprehensive 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 A.A./A.S. 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 number 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 with the instructors, and a real understanding that students that study 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 sometimes brings additional challenges, as that experience can feel isolating and unfamiliar at times. 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** is the second of the three required services for new first-time college students. To a large degree, success in college is dependent upon 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 and 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. If assessment has been completed at another college, provide official scores to the Admissions Office or to a counselor so that there is no need to retake tests already taken elsewhere. Then your previous test scores can be reviewed with your overall high school GPA.

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, locations, and other assessment-related information are on the Assessment webpage, as are practice tests for the different math tests. Also consider Math Plus, a week-long, free workshop that strengthens your math skills so that you can either test into a higher level or strengthen the skills you need for the course into which you placed.

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: http://www.cabrillo.edu/services/assessment/.

**PREREQUISITES AND CO-REQUISITES**

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 co-requisite. 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 co-requisite through other documented means or successfully completed the pre- or co-requisite course at another college, you must submit an official transcript to Admissions & Records to have the verification entered onto your college record. See this *Catalog*, the *Schedule of Classes*, and the Cabrillo webpage: www.cabrillo.edu/services/counseling/prerequisiteclearance.html for more information. A counselor can also assist you with information about pre- and co-requisites. Some prerequisite classes are blocked in the computer and others are not. That means that until you have documentation that you have given to Admissions, you cannot register for the next class. Information about math and English prerequisites can be more complicated. See a counselor to select the correct course for your major and transfer goals. Or, a staff member from the academic area will contact you if you enroll in an unblocked class and ask you to provide documentation that you have met the requisite. If you believe you already have the skill level offered in the pre- or co-requisite course, see the Challenge Process (next page).

**ORIENTATION**

Orientation to college is one of three core services that are required of all first-time students. The other 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, through several Counseling and Guidance (CG) courses, and in person through different on campus events. 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/orientation.html.

**EDUCATIONAL ADVISING AND COUNSELING**

After completing orientation and assessment, the student will begin the educational planning process which will result in an Education Plan or “Ed Plan.” The basics of an Ed Plan can be acquired in an Ed Plan workshop offered through the Counseling Department and the Transfer Center. After completing the workshop, the student will have an Abbreviated Ed Plan—one or two semesters of classes to start. You can also make a 30 minute appointment to see a counselor for the Ed Plan development.
The content of the Ed Plan workshop includes information on general education, courses for your major, elective courses, and the things to consider for transfer. It gets one started and allows for a more focused visit afterwards with a counselor. 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.

EXEMPTIONS FROM STUDENT SUCCESS AND SUPPORT SERVICES

Students that already have completed an associate degree or higher are not required to complete these services. If students are already in a math or English sequence of courses, they do not need to assess but may want to see if they can place into a higher level course. See the Assessment Center for more information on that process. 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 or official college transcripts from a previous college are required for comparable course placement at Cabrillo. Students should bring those scores and their overall high school GPA information to a counseling appointment or to assessments. Students are always required to participate in any of these services. Official transcripts need to be sent to Admissions & Records for evaluation.

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 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.

E-forms for challenging pre- or co-requisites are available online at www.cabrillo.edu/#/forms/ss. Questions can be asked at the division office that houses the class you want to challenge.

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 three semesters of academic or progress probation.

We want to work with you before you reach this point. Completion of a mandatory workshop is required in order to lift your registration “hold.” 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 enroll in 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: Dual enrollment 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 session Schedule of Classes for the late registration date for this term.

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 fall or spring full-term course after the second week will receive an academic mark on his/her permanent record. Short-term and summer courses have much shorter deadlines. Consult the instructor or Admissions & Records for deadline 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 318 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 degreed student has completed all courses and unit requirements for the Associate in Arts or Associate in Science Degree or higher.

Student Right-To-Know
In compliance with the Student-Right-to-Know and Campus Security Act of 1990 (Public Law 101-542), it is the policy of our college district to make available its completion and transfer rates to all current and prospective students. Beginning in Fall 2012, a cohort of all certificate-, degree-, and transfer-seeking first-time, full-time students were tracked over a three-year period. Their completion and transfer rates are listed below. 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 2012 to Spring 2015. Students who have completed 60 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 2013 to Spring 2015, are transfer students. Adding the completion and transfer rates together show that 37.31% of the cohort completed (25.59%) or transferred (11.72%) within three years. This information may be found at the following California Community Colleges Chancellor’s Office site: http://srtk.cccco.edu/index.asp.

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. Changing your major may cause changes to your financial aid, and may cause you to lose subsidy on existing loans. See a Financial Aid advisor and a counselor before changing your major in WebAdvisor.

STUDY LOAD/EXCESS UNITS
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.

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. 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 students seeking to enroll for credit have been given priority, and students who wish to audit are not 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 in division offices. Audit fees apply as well as 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 the current fee schedule, go to the Cabrillo website:
https://www.cabrillo.edu/services/ar/fees-fallspring.html.

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 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. California 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. California Promise Grant Students are required to pay the student health services fee. Dual enrolled and noncredit students who wish to use student health services will need to pay $20 for Fall or Spring semesters and $17 for summer semesters.

Student Center Fee
The Student Center fee is required of all students and is designated solely for the purpose of funding services and activities sponsored by Associated Students of Cabrillo College. The fee is $1 per unit for a maximum of $5, per fall or spring semester, and will not exceed $10 per student per academic year. Noncredit enrollees cannot be required to pay the fee, nor can recipients of Temporary Assistance to Needy Families, SSI/SSP, or General Assistance. California Promise Grant Students will be charged the Student Center fee. (California Education Code section 76375)

Student Representation Fee
In May 1989, the Associated Students of Cabrillo College elected to assess every student a mandatory $1 fee. This mandatory fee is collected in the fall and spring semesters and is used to train and support student government 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. (California Education Code section 76060.5)

Transportation Fee
This $40 for full time students and $39 for part time students fee was approved by a Cabrillo College student body election. The fee is charged to all students each semester and will provide each student with a bus pass valid seven days a week. Santa Cruz Metro provides service throughout Santa Cruz County with transfers to Monterey-Salinas Transit. Students should show their Cabrillo ID card with a current semester sticker to ride the bus. Semester stickers are available in the Welcome Center (SAC West). (California Education Code section 76361)

OPTIONAL FEES

Parking Fee
This fee is optional. A student may purchase a semester parking permit for $40 ($20 for California Promise Grant Students). A student who does not purchase a semester parking permit can pay $4 per day to park in a student parking lot.

Parking Permit Regulations
1. Each student must have a parking sticker attached to his/her vehicle if parking on campus.
2. Parking is allowed in any lot except red curb zones, staff and visitor reserved zones.
3. Parking spaces reserved for people with physical disabilities may only be occupied by vehicles with properly displayed Disabled Person Placards or license plates.
4. Citations are issued for parking violations.
5. Park in marked spaces only.
6. Parking permits are valid for both day and evening.
7. Parking permits should be displayed in the bottom driver’s side of the front windshield.
8. Motorcycles parking in designated motorcycle spaces need not possess or purchase a parking permit. Motorcycles parking in spaces otherwise designated for cars/trucks, must purchase a parking permit.

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

Student Activity Card (SAC) Fee
Students are members of the Associated Students of Cabrillo College. The Student Activities Card (SAC) fee of $10.00 is automatically charged to each student. The cost to attend and participate in ASCC activities is free or discounted to those who pay the SAC fee. The Student Activity Card can be picked up at the Student Affairs Office in the SAC East building on the Aptos campus or the Student Learning Center at the Watsonville Center. The SAC fee is not mandatory and students can decline payment of this fee when they register for classes on WebAdvisor, or after they register by submitting a SAC Fee Refund request at the Student Affairs Office.

Out-of-State Students/Nonresident Student Fees
Students who have not established California residency are charged an additional nonresident or international student tuition fee. The fee amount is determined each year by the Cabrillo Governing Board, according to the provisions of California Education Code section 76140. For academic year 2018-2019, students from other states pay nonresident tuition of $304 per unit; nonresidents who are citizens and residents of a foreign country pay $306 per unit ($304 nonresident tuition plus $2 capital outlay fee), in addition to all other fees listed for California residents, including enrollment fees. The capital outlay fee may be waived for economic hardship, or for victims of persecution or discrimination in their home countries.
Fee Exemptions
Dual enrollment students are exempt from all mandatory fees. Community members taking only non-credit classes are exempt from all mandatory fees. Students registered in online classes only, and Stroke Center patients, are exempt from the transportation fee.

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 dropped by the deadline date. For current semester dates and deadlines dates, go to the Admissions and Records website: www.cabrillo.edu/services/ar/calendar-ar.html.
3. A reduced unit load within the 10% deadline for short-term courses (deadlines are available from Admissions & Records at Aptos or Watsonville, or the instructor). All summer courses are short-term courses.
4. Fees collected in error.
   If a student is eligible for a refund and the fees were paid by a federal or state financial aid program, the refund will be returned to the appropriate financial aid program.

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

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

Instructional Materials Policy
Cabrillo College may require students enrolled in credit and noncredit courses and programs to buy certain materials, including but not limited to textbooks, tools, equipment, and clothing, if:
1. The instructional and other materials are used in the production of an “end product” that has continuing value to the student outside the classroom, or
2. The instructional and other materials required for the class have continuing value to the student outside of the classroom.

Textbooks and Supplies
Students must furnish their own textbooks, workout clothes for physical education classes, locks, and supplies.

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

Returned Check Service Charge
All returned checks are subject to a service charge of $25.
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:

- **A** Excellent .................................................................4 grade points per unit
- **B** Good ........................................................................3 grade points per unit
- **C** Satisfactory ............................................................2 grade points per unit
- **D** Passing, less than satisfactory..........................1 grade point per unit
- **I** Incomplete ............................................................. 0 grade points, 0 units
- **F** Failing .......................................................................................0 grade points
- **P** Pass, satisfactory or better ...................0 grade points, normal units
- **NP** No Pass, less than satisfactory; completed course without achievement (See progress probation/dismissal policy) 0 grade points, 0 units
- **W** Withdrawal (by the 13th semester week) (see progress probation/dismissal policy). 0 grade points, 0 units
- **IP** In Progress .............................................................. 0 grade points, 0 units
- **RD** Report Delayed .....................................................0 grade points, 0 units
- **MW** Military Withdrawal.............................................0 grade points, 0 units

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 nondegree 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. Arrangements must be made within the first 30% of the semester for a full-term course or 30% of 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 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.

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 “NP” or “F” grade.

NOTE: In accordance with state regulations, student withdrawals are restricted to a total of two withdrawals per course. The third enrollment must result in a letter grade. Only three attempts to pass a course are allowed.

“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.
## ADVANCED PLACEMENT EXAM (AP) FOR CABRILLO

<table>
<thead>
<tr>
<th>College Board AP Exam</th>
<th>Cabrillo Total Units Earned</th>
<th>Cabrillo Units 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>3</td>
<td>3</td>
<td>B4</td>
</tr>
<tr>
<td>Calculus BC</td>
<td>6</td>
<td>3</td>
<td>B4</td>
</tr>
<tr>
<td>Calculus BC/AB subscore**</td>
<td>3</td>
<td>3</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 &amp; Politics</td>
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<td>3</td>
<td>D8</td>
</tr>
<tr>
<td>Computer Science A</td>
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<tr>
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</tr>
<tr>
<td>Computer Science Principles</td>
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<td>3</td>
<td>B4</td>
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<tr>
<td>English: Language &amp; Comp.</td>
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<td>3</td>
<td>A1</td>
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<tr>
<td>English Literature &amp; Comp.</td>
<td>6¹</td>
<td>6</td>
<td>A1 + C2</td>
</tr>
<tr>
<td>Environmental Science</td>
<td>4</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 &amp; Culture</td>
<td>6</td>
<td>3</td>
<td>C2</td>
</tr>
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<td>German Language &amp; Culture</td>
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<tr>
<td>Human Geography</td>
<td>3</td>
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<td>D5</td>
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<td>Italian Language &amp; Culture</td>
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<td>C2</td>
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<td>Japanese Language &amp; Culture</td>
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<td>Macroeconomics</td>
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<td>D2</td>
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<td>Music Theory</td>
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<td>C1</td>
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<tr>
<td>Physics 1</td>
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<td>B1 + B3</td>
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<tr>
<td>Physics 2</td>
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<td>3</td>
<td>C2</td>
</tr>
<tr>
<td>Seminar</td>
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<tr>
<td>Statistics</td>
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<td>B4</td>
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<tr>
<td>Studio Art 2D/3D/Drawing</td>
<td>3</td>
<td>0</td>
<td>N/A</td>
</tr>
<tr>
<td>US Gov't &amp; Politics</td>
<td>3</td>
<td>3</td>
<td>D8 + US-2</td>
</tr>
<tr>
<td>U.S. History</td>
<td>6</td>
<td>3</td>
<td>(C2 or D6) + US-1</td>
</tr>
<tr>
<td>World History</td>
<td>6</td>
<td>3</td>
<td>C2 or D6</td>
</tr>
</tbody>
</table>

* If test was taken was taken prior to F'09, 6 units of GE awarded for Cabrillo. AP Physic B exam accepted prior to F'13.

** Students who take the Calculus BC examination and earn a subscore of 3 or higher on the Calculus AB portion will receive credit for the Calculus AB examination, even if they do not receive a score of 3 or higher on the BC examination (note that the maximum credit awarded is 6 semester units).

1. Students who pass more than one AP exam in English receive 12 units of credit from the CSU.
2. Students with passing AP scores for Spanish Language and Culture will receive 8 units toward the Cabrillo A.A. Degree for us in the major (for Cabrillo non-transferable degrees only).
### ADVANCED PLACEMENT EXAM (AP) FOR CSU

<table>
<thead>
<tr>
<th>College Board AP Exam</th>
<th>CSU Units Minimum</th>
<th>CSU GE Units Earned</th>
<th>GE Area</th>
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<tbody>
<tr>
<td>Art History</td>
<td>3</td>
<td>3</td>
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</tr>
<tr>
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<td>B2 + B3</td>
</tr>
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<td>3</td>
<td>3</td>
<td>B4</td>
</tr>
<tr>
<td>Calculus BC</td>
<td>3</td>
<td>3</td>
<td>B4</td>
</tr>
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<td>Calculus BC/AB subscore</td>
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<td>B4</td>
</tr>
<tr>
<td>Chemistry*</td>
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<td>B1 + B3</td>
</tr>
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<td>3</td>
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<td>C2</td>
</tr>
<tr>
<td>Comparative Gov’t &amp; Politics</td>
<td>3</td>
<td>3</td>
<td>D8</td>
</tr>
<tr>
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<td>0</td>
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</tr>
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<td>Computer Science Principles</td>
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<td>3</td>
<td>B4</td>
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<td>3</td>
<td>A2</td>
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</tr>
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<td>C2 or D6</td>
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<td>C2</td>
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<td>C2</td>
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<td>D5</td>
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<td>3</td>
<td>C2</td>
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<td>3</td>
<td>3</td>
<td>C2</td>
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<td>Latin</td>
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<td>C2</td>
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<tr>
<td>Macroeconomics</td>
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<td>Physics 2</td>
<td>3</td>
<td>4</td>
<td>B1 + B3</td>
</tr>
<tr>
<td>Physics C (electricity/magnetism)</td>
<td>3</td>
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<td>B1 + B3</td>
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<td>Physics C (mechanics)</td>
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<td>4</td>
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<td>C2</td>
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<td>Seminar</td>
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<td>0</td>
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<td>Statistics</td>
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<td>B4</td>
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<tr>
<td>Studio Art 2D/3D/Drawing</td>
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<tr>
<td>US Gov’t &amp; Politics</td>
<td>3</td>
<td>3</td>
<td>D8 + US-2</td>
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<td>3</td>
<td>3</td>
<td>(C2 or D6) + US-1</td>
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<tr>
<td>World History</td>
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<td>3</td>
<td>C2 or D6</td>
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</tbody>
</table>

*If test was taken prior to F’09, 6 units of GE awarded for Cabrillo. AP Physics B exam accepted if taken prior to F’13.

**The Environmental Science exam can clear either B2 or B1 plus B3 through F’09, after that date only B1+B3.

1. These units count toward admission eligibility. 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 1100. Areas of American Institutions (US-1 through US-3) are set forth in Sections 1A and 1B of CSU Executive Order 1061.
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. See Note below.
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.
6. Students who pass more than one AP exam in English receive 12 units of credit from the CSU.

*Note: Students who take the Calculus BC examination and earn a subscore of 3 or higher on the Calculus AB portion will receive credit for the Calculus AB examination, even if they do not receive a score of 3 or higher on the BC examination (maximum credit awarded is 6 semester units).*
<table>
<thead>
<tr>
<th>AP Exam</th>
<th>UC Units Awarded</th>
<th>IGETC Area Fulfilled</th>
<th>Course Equivalent</th>
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<td>5B and 5C2</td>
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<td>2A</td>
<td>MATH 5A</td>
</tr>
<tr>
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<td>2A</td>
<td>MATH 5B</td>
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<td>Calculus BC/AB subscore</td>
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<td>2A</td>
<td>MATH 5A</td>
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<td>Chemistry</td>
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<td>5A and 5C2</td>
<td>CHEM 3+3L</td>
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<td>3B + 6A</td>
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<td>4H</td>
<td>PS 2</td>
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<td>0</td>
<td>N/A</td>
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<tr>
<td>Computer Science Principles</td>
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<td>3</td>
<td>B4</td>
</tr>
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<td>1A</td>
<td>ENGL 1A</td>
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<td>1A or 3B **</td>
<td>ENGL 1A or 1B</td>
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<td>5A and 5C2</td>
<td>ES 10 + 10L</td>
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<td>3B or 4F**</td>
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<td>3B + 6A</td>
<td>FR 3 or 4</td>
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<tr>
<td>German Language &amp; Culture</td>
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<td>3B + 6A</td>
<td>GRMN 3</td>
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<td>3B + 6A</td>
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<td>3B + 6A</td>
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<td>ECON 1A</td>
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<td>ECON 1B</td>
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<td>No Equivalent</td>
</tr>
<tr>
<td>Physics B</td>
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<td>5A and 5C2</td>
<td>PHYS 2A</td>
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<td>Physics I</td>
<td>5.33</td>
<td>5A and 5C2</td>
<td>PHYS 11 or 2A</td>
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<td>5A and 5C2</td>
<td>PHYS 2B</td>
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<td>Physics C (electricity/magnetism)</td>
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<td>5A and 5C2</td>
<td>PHYS 11</td>
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<tr>
<td>Physics C (mechanics)</td>
<td>2.67</td>
<td>5A and 5C2</td>
<td>PHYS 11</td>
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<td>2.67</td>
<td>4I</td>
<td>PSYCH 1</td>
</tr>
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<td>3B + 6A</td>
<td>SPAN 3</td>
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<td>SPAN 25 or 26</td>
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<td>2A</td>
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<td>5.33 max for all exams</td>
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<td>No Equivalent</td>
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<td>US Gov’t &amp; Politics</td>
<td>2.67</td>
<td>4H</td>
<td>PS 1</td>
</tr>
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<td>U.S. History</td>
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<td>3B or 4F**</td>
<td>HIST 17B</td>
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<tr>
<td>World History</td>
<td>5.33</td>
<td>3B or 4F**</td>
<td>HIST 2A or 2B</td>
</tr>
</tbody>
</table>

**AP exams may be used in either area regardless of where the certifying CCC’s course (discipline) is located. An acceptable AP score equates to 3 semester units for IGETC Certification purposes.

1. At most UC’s additional credit will not be granted if a student takes the equivalent course.
2. AP exams in Biology, Chemistry, Physics 1, 2, or B: apply 4 semester units toward IGETC certification. For the Environmental Science, Physics C (elec/mag.), Physics C (mech.): only 3 semester units may be applied toward IGETC. Therefore, students who complete these exams will be required to complete an additional 4 semester units to satisfy the minimum required units for IGETC Area 5. For Physics exams – 5.33 UC units maximum awarded for all tests.

Note: Students who take the Calculus BC examination and earn a subscore of 3 or higher on the Calculus AB portion will receive credit for the Calculus AB examination, even if they do not receive a score of 3 or higher on the BC examination (note that the maximum credit awarded by the UC is 5.33 semester units for UC).
### COLLEGE-LEVEL EXAMINATION PROGRAM (CLEP) FOR CABRILLO

<table>
<thead>
<tr>
<th>Exam</th>
<th>Required Score</th>
<th>Cabrillo Units</th>
<th>GE Units</th>
<th>GE Area</th>
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<tbody>
<tr>
<td>American Government</td>
<td>50</td>
<td>3</td>
<td>3</td>
<td>D8</td>
</tr>
<tr>
<td>American Literature</td>
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<td>3</td>
<td>3</td>
<td>C2</td>
</tr>
<tr>
<td>Analyzing and Interp. Literature</td>
<td>50</td>
<td>3</td>
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<td>C2</td>
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<td>Biology</td>
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<td>B2</td>
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<td>B1</td>
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<td>B4</td>
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<td>D2</td>
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<td>Western Civ II</td>
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<td>3</td>
<td>3</td>
<td>D6</td>
</tr>
</tbody>
</table>

Note: CLEP may not be used for IGETC.

1. If a student passes more than one CLEP test in the same language other than English (e.g. two exams in French), 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; A passing score higher than 50 is considered "Level II" and earns additional units of credit and placement in Area C2, as noted.
## COLLEGE-LEVEL EXAMINATION PROGRAM (CLEP) FOR CSU

<table>
<thead>
<tr>
<th>Exam</th>
<th>Required Score</th>
<th>CSU Units towards Admission*</th>
<th>CSU 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>
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<td>3</td>
<td>3</td>
<td>C2</td>
</tr>
<tr>
<td>Analyzing and Interp. Literature</td>
<td>50</td>
<td>3</td>
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<td>C2</td>
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<td>Biology</td>
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<td>B2</td>
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<td>English Literature</td>
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<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 1 Level I</td>
<td>50</td>
<td>6</td>
<td>0</td>
<td>N/A</td>
</tr>
<tr>
<td>French 1 Level II</td>
<td>59</td>
<td>12</td>
<td>3</td>
<td>C2</td>
</tr>
<tr>
<td>German 1 Level I</td>
<td>50</td>
<td>6</td>
<td>0</td>
<td>N/A</td>
</tr>
<tr>
<td>German 1 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>
</tr>
<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 1 Level I</td>
<td>50</td>
<td>6</td>
<td>0</td>
<td>N/A</td>
</tr>
<tr>
<td>Spanish 1 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>

*Note: CLEP may not be used for IGETC.

1. If a student passes more than one CLEP test in the same language other than English (e.g. two exams in French), 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; A passing score higher than 50 is considered "Level II" and earns additional units of credit and placement in Area C2 of CSU GE Breadth, as noted. *These units count toward eligibility for admission. The units may not apply toward Associate Degrees for Transfer (ADTs) or the baccalaureate degree. The units may not all apply toward certification of the corresponding GE-Breadth area.
### INTERNATIONAL BACCALAUREATE (IB) EXAM FOR CABRILLO

**Score of 5 - High Level (HL) required**

<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 A Literature HL</td>
<td>4</td>
<td>6</td>
<td>3</td>
<td>C2</td>
</tr>
<tr>
<td>Language A Lang. and Lit HL</td>
<td>4</td>
<td>6</td>
<td>3</td>
<td>C2</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 B 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>
</tr>
<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>
</tbody>
</table>

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.

### INTERNATIONAL BACCALAUREATE (IB) EXAM FOR CSU

<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 A Literature HL</td>
<td>4</td>
<td>6</td>
<td>3</td>
<td>C2</td>
</tr>
<tr>
<td>Language A Lang. and Lit HL</td>
<td>4</td>
<td>6</td>
<td>3</td>
<td>C2</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 B 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>
</tr>
<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>
</tbody>
</table>

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.

### 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>4</td>
</tr>
<tr>
<td>Geography HL</td>
<td>5</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>History (any region) HL</td>
<td>5</td>
<td>3</td>
<td>3B or 4*</td>
</tr>
<tr>
<td>Language A: Literature (any except English) HL</td>
<td>5</td>
<td>3</td>
<td>3B and 6A</td>
</tr>
<tr>
<td>Language A: Language and Literature (any except English) HL</td>
<td>5</td>
<td>3</td>
<td>3B and 6A</td>
</tr>
<tr>
<td>Language A: Literature (any language) HL</td>
<td>5</td>
<td>3</td>
<td>3B</td>
</tr>
<tr>
<td>Language A: Language and Literature (any language) HL</td>
<td>5</td>
<td>3</td>
<td>3B</td>
</tr>
<tr>
<td>Language B (any language) HL</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>
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<tr>
<td>Psychology HL</td>
<td>5</td>
<td>3</td>
<td>4</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. 2) 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. 3) *IB exam may be used in either area regardless of where the certifying CCC’s discipline is located.
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 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 IGETC 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.

IMPORTANT NOTE: Some universities may accept a score of 3 on an AP exam to meet campus-specific general education or major preparation requirements. A score of 4 or higher is required in some instances.

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 & Articulation site: 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 receive college credit. The students’ high school instructors will provide agreed-upon eligibility information for the credit, which may be awarded automatically. If necessary, the forms necessary to petition for credit are available at Go.Cabrillo.edu/getcredit4highschool. Please check with the Articulation Office at Cabrillo College if you have questions about eligibility and the processes for receiving credit. (831-477-3378)
REPETITION OF COURSES: FREQUENTLY ASKED QUESTIONS

Changes to repeatability went into effect in fall, 2013. What courses will we be allowed to list as repeatable, and what courses will be given exceptions?

Under new Title 5 regulation §55041, courses that can be marked as repeatable, meaning that any student can attempt and successfully complete the course for credit more than once, fall into 3 categories:

1) Courses coded as athletics (Cabrillo ATH courses), including off-season conditioning courses, subject to the limitations on hours per sport per year in Title 5 §58162;

2) Courses that are required to be repeated in any discipline in order to complete or gain entry into a bachelor's degree program at any CSU or UC campus. Note that repetition of the course must be required for the bachelor's degree, not simply allowed; and

3) Courses designed specifically for participation in intercollegiate academic or vocational competitions. The competitions must be sanctioned by an external oversight body, and the objectives or outcomes for successful completion of the course must be directly tied to participation in the competition.

That is the full list regarding repeatable courses. No other exceptions will be allowed.

For information on repeatable classes, see noncredit information on page 12.

What about cases when students need to repeat courses for reasons like retraining or updating skills or classes for students with disabilities?

This question raises the distinction between repeatable courses that can be retaken by any student without special permission, and circumstances in which any given student can be permitted to repeat a course on an individual basis.

The new Title 5 regulations include several instances in which colleges can grant individual students the opportunity to repeat a course that he or she has passed previously. Such circumstances include legally mandated retraining, employer mandated retraining, significant lapse of time (now defined as not less than 36 months), and others.

Courses for students with disabilities can be repeated as many times as necessary as long as the Accessibility Support Center verifies the need for the student to retake the course.

The full list of instances in which colleges can allow students to repeat a course on an individual basis is included in new Title 5 regulation §55040. Cabrillo College has developed policies to outline the process through which it will verify and document a student's need to repeat a course under these provisions.

What was Cabrillo advised to do with courses that were once repeatable but now are not?

Cabrillo's Curriculum committee has examined the college's curriculum carefully and has worked with discipline faculty to make the changes that best suit the students' needs.

One solution is to break a formerly repeatable course into levels (for example, KIN 60, Swimming, formerly repeatable four times, now becomes KIN 60A, KIN 60B, KIN 60C, each of which may be taken successfully once by any single student.) NOTE: The student who took the repeatable version of the KIN course(s) or any formerly repeatable course, is no longer able to take the new, leveled course version. The reason for this is because that student has already taken and passed the equivalent of all levels for the new versions, and is therefore unable to retake them further.

Is there a limit to how many variations or levels may be created for a specific subject?

There is no Title 5 limit on the number of levels or variations that can be created. However, the new regulations do establish that in physical education and visual and performing arts, students may have no more than four enrollments in any given group of active participatory courses that are related in content (commonly known as a family of courses). So while colleges could offer seven levels of golf or piano, students will not be allowed to take all seven levels, as they are limited to four enrollments.

Note that all enrollment attempts, including unsuccessful ones such as a failure or a transcripted withdrawal (transcript shows a W), count among these four enrollments. This limitation is specific to physical education (KIN) and visual and performing arts (ART, AP, MUS, TA); career technical education (CTE) and other disciplines have no such restrictions.

But if we separate our courses into levels, each one may not have enough students by itself to survive. Can Cabrillo College offer multiple levels of a subject at the same time and under the supervision of the same instructor?

Title 5 and Education Code do not specifically offer any guidance regarding courses being combined in this manner. The most important factor to consider in offering courses in such combinations is that all statewide and local curricular standards must be met for all of the courses included. For example, the total enrollment for the combined courses should not exceed the enrollment maximum set for any of the courses when they are offered separately. The objectives outlined in the Course Outline of Record for each class must also be met to avoid any lowering of instructional quality. Although the courses are being taught in the same place and by the same instructor, the standards and expectations set by the college in the course outline must still be respected.

How will Cabrillo College know how to divide courses into families or how many families to create?

The creation for Cabrillo College “families” has been a local decision. Curricular work was done in the Visual and Performing Arts and in Kinesiology to create “families” of leveled courses with separate skills levels and outcomes.

The Cabrillo Curriculum Committee reviewed hundreds of new courses, as well as modifications to many other existing courses during the 2012-2013 Academic year. Those curriculum changes were put into effect in the fall of 2013. College faculty and program chairs identified courses that could continue to be repeatable. In the case of the courses that are required to be repeated in order to complete or gain entry into a bachelor's degree program at any CSU or UC campus, a representative campus has been identified with specific information about the requirement, and this information has been included in the Course Outline of Record for the repeatable course.

SPECIFIC QUESTIONS:

Are courses repeatable that teach a subject matter that is frequently updated?

While these courses are not specifically repeatable, it is possible for...
the student to retake a course with changes in subject matter by petition.

What about Career Work Experience courses (CWEE) courses?

All General and Career Work Experience courses can be repeated. Students may earn up to a total of 16 units of Cooperative Work Experience Education, once the 16 unit cap has been reached, CWEE courses can no longer be repeated.

I have other questions. Where can I go for help?

The Chancellor's Office published the final version of Credit Course Repetition Guidelines in November, 2013. See the following: http://extranet.cccco.edu/Portals/1/AA/Credit/2013Files/CreditCourseRepetitionGuidelines-Final.pdf

Repetition of Courses for Financial Aid Recipients

The Financial Aid Office is required to monitor courses students have repeated 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 Admissions & Records, who will act for the Academic Council. If the above conditions are met, the petition will be granted. Cases needing special deliberation will be brought directly to the Academic Council. A student may petition for academic renewal of his/her Cabrillo record with an official transcript from another college or university, if the above conditions are met. Alleviated grades will have the code “04” (alleviation of unsatisfactory grade) on the transcript next to the grade, or the letter R (Replaced).

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

If an equivalency has been established between a two-course sequence and a single course, a sub-standard grade in the single course can be removed from the GPA upon successful completion of the two-course sequence. In these cases, with the assistance of a counselor, a student must petition to have the substandard grade removed from the GPA, via use of the Academic Renewal petition. This process is required for the following sequences:

- **CHEM 3 + CHEM 3L** allows for the removal of the CHEM 2 substandard grade points
- **CHEM 30A + CHEM 30B** allows for the removal of the CHEM 32 substandard grade points
- **MATH 2 + MATH 3** allows for the removal of the MATH 4 substandard grade points

BIO 9A + BIO 9B allows for the removal of the substandard grade points in BIO 1A and/or 1B and/or 1C

*Note: the course and grade will still be visible on the transcript; however, the GPA will no longer be impacted following this renewal process.

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 (AF), 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 4250.

### 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.

### Dismissal

3. A student shall be subject to dismissal if in three consecutive semesters, either or both of the following criteria are applicable:

   a. The student’s cumulative grade point average is less than 2.0 GPA in all units attempted.

   b. The cumulative total of units in which the student has been enrolled for which entries of “W,” “I,” or “NP” has been recorded, reaches or exceeds 50 percent.

The two probationary criteria described above will be applied in such a manner that a student may be placed on probation under either or both systems, and subsequently may be dismissed under either or both systems. The Counseling Department provides workshops for students on academic and progress probation and dismissal. Attendance is required.

Students will be removed from probation when the cumulative grade point average is 2.0 or higher and/or when the percentage of units for which there are entries of “W,” “I,” and “NC,” drops below fifty percent (50%).

Cabrillo College will publish this Catalog, procedures and conditions for probation and/or dismissal, including an appeal process for dismissed students seeking reinstatement.
ACADEMIC STANDARDS

Students on probation and/or dismissal may have a hold placed on their record blocking the ability to register or make changes to an existing schedule. Students with such a hold must attend a Probation/Dismissal Workshop offered through Counseling. Students who attend the workshop, and who maintain satisfactory academic progress can continue to attend Cabrillo. A student who is on academic probation and earns a semester GPA of 2.0 shall not be dismissed from the college as long as the minimum semester GPA is maintained (AP 4250). Students who attend the workshop and then do not maintain satisfactory academic standards are subject to dismissal from Cabrillo College, requiring the student to take no classes for one semester. Those who wish to return after being unregistered for one semester must meet with a counselor to review academic goals and other relevant concerns to having a successful educational experience.

Dismissed students, who have already attended the workshop, who want to be reinstated immediately may appeal their Dismissal through the Director of Admissions & Records. Students who petition for reinstatement must describe what changes now cause them to expect success, what their educational goals are, and in which courses they wish to enroll in the stated term. Examples of changes may include such conditions as reduced work hours or improved health.

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 receiving a failing grade on the assignment, a failing grade for the course, or referral to a disciplinary process that could result in probation or suspension from the college. Students are expected to know how to credit sources, how to quote and paraphrase, and how to avoid plagiarizing the work of others. If you are unsure, ask your instructor for assistance before you submit your work for credit.

MULTIPLE ENROLLMENTS IN THE SAME TERM

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.
  - A student obtains the signature of the faculty member who agrees to supervise directly all missed work each week, as well as the signature(s) of the dean(s) responsible for all impacted divisions.
  - The student makes up the overlapping time at some other time during the same week under the direct supervision of the instructor, and the instructor keeps written documentation of all work made up each week.

BASIC SKILLS

Enrollment in precollegiate 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 precollegiate basic skills courses shall submit a petition to an academic counselor. The counselor shall meet with the student to review educational records and faculty progress reports and to develop an academic plan for the next semester. The counselor shall forward the student petition, the plan, student records, and faculty progress reports to the Vice President, Student Services, who shall forward them, with a recommendation, to the Academic Council subcommittee for student appeals.

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

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

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

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

6. If the waiver is denied, the Director of Admissions and Records shall refer the student to appropriate adult education programs or community services.

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

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, Honors Transfer Program, and STARS. Visit the Learning Communities Center in person or visit the website for more information: www.cabrillo.edu/services/lcc/.

Puent 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, 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 not 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 Admissions & Records at Aptos or the Watsonville Center. To ensure a refund or reversal of charges for a short-term course, the course must 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, Co-requisites, Hybrid Requisites, 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 co-requisite is a course that must be taken concurrently with another course. When a student registers for a class requiring a co-requisite, the student must register for both classes at the same time. If the student does not register for both classes, neither will be processed during registration. If a student drops a course that has a co-requisite, both courses must be dropped.

A hybrid requisite is a course that may be taken before or at the same time as another course.

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 requisites at another college or have the skills and/or knowledge required, you must bring documentation to a Cabrillo counselor for review and approval or utilize the college’s Requisite Challenge process. See below.

CHALLENGING COURSE REQUISITES & LIMITATIONS

Challenges to requisites 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 with the related division office where the class you want to challenge is housed. For additional information and for ways to maximize a successful “challenge”, find the Challenge Form online at https://etcentral.edu/#/form55. 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
Cabrillo College is honored to serve our veterans and does so by offering programs and services through the Veterans Information Center (VIC). The VIC, located in room 914, provides services to meet the various needs of veterans and to assist them in obtaining a prompt receipt of their educational benefits. The center provides information and resources for veterans transitioning out of active duty and into student life, academic resources to succeed in school and a place to gather, socialize and form supportive, positive relationships with other veterans.

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. The VA list 12 full term units as full time, 9 full term units as ¾ time, and 6 full term units as ½ time. If a Veteran student has less than 6 units, they may qualify for the tuition and fees only. Chapter 33 or Post/911, Veteran students must have 6.5 units to be certified. Also note, short term and weekend classes have a different fee structure. For more information, please refer to the Cabrillo College Veterans page at www.cabrillo.edu/services/ar/veterans-overview.html.

Veteran’s Military Credit (DD214)
Cabrillo will accept a veteran’s DD-214 for credit toward Cabrillo’s CSU transferable and non-transferable A.A. and A.S. 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. 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) at Cabrillo College, or at another U.S. regionally accredited institution of higher learning. Documented military or medical leave is not 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 nondisabled 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 Accessibility Support Center at (831) 479-6379 for further information.
PRIVACY RIGHTS OF CABRILLO COLLEGE STUDENTS: ANNUAL NOTIFICATION

Notification of Rights under FERPA

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

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

   A student should submit to the Director of Admissions & Records or designee a written request that identifies the record(s) the student wishes to inspect. The Director of Admissions & Records will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the Director of Admissions & Records, the Director of Admissions & Records shall advise the student of the correct official to whom the request should be addressed.

2. The right to request the amendment of the student’s education records that the student believes are inaccurate, misleading, or otherwise in violation of the student’s privacy rights under FERPA.

   A student who wishes to ask the College to amend a record should write the Director of Admissions & Records, clearly identify the part of the record the student wants changed, and specify why it should be changed.

   If the College decides not to amend the record as requested, the College will notify the student in writing of the decision and the student’s right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

3. The right to provide written consent before the College discloses personally identifiable information from the student’s education records, except to the extent that FERPA authorizes disclosure without consent. The College discloses education records without a student’s prior written consent under the FERPA exception for disclosure to school officials with legitimate educational interests.

   A school official is a person employed by the College in an administrative, supervisory, academic or research, or support staff position (including law enforcement unit personnel and health staff); a person or company with whom the College has contracted as its agent to provide a service instead of using College employees or officials (such as an attorney, auditor, or collection agent); or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks.

   A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibilities for the College. The College may also disclose education records without consent to officials of another school in which a student seeks or intends to enroll.

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

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

Directory Information

Cabrillo College will not release personal data about students without their prior written consent except to persons and agencies authorized by law. The college may make an exception to legitimate inquiries, by providing general directory information to include: name and date of attendance, degrees and awards received by students, including honors, scholarship awards, athletic awards, and Dean’s List recognition. Student participation in officially recognized activities and sports including weight, height, and high school of graduation of athletic team members.

Student Records Consent

Cabrillo College may permit access to student records to any person for whom the student has executed written consent specifying the records to be released and identifying the party or parties to whom the records may be released. Such consent must be signed and dated by the student. The recipient must be notified that the transmission of the information to others is prohibited. Title 5 (California Administrative regulations) Section 54616.

Withholding of Student Records

Students or former students who fail to pay a proper financial obligation to the District shall have official transcripts, diplomas, and registration privileges withheld.
Student Services, Activities, Rights and Responsibilities

ACTIVITIES AND ORGANIZATIONS

Student Life Office
The operational hub of co-curricular activities on campus is the Student Life Office.
Located in Building 900, this program 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, student activity card and bus pass.

Student Senate at Cabrillo College
The Associated Students of Cabrillo College (ASCC) 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 co-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 or go to: http://go.cabrillo.edu/CabrilloClubs.

Students and Shared Governance—Campus Committees
Students are appointed by the ASCC Student Senate to serve on important college shared governance committees. If you are interested in serving on a Cabrillo College committee, stop by the Student Life Office. First consideration will be given to current members of the ASCC Student Senate.
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 state-wide 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, 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 Association. Obtaining clearance for athletic eligibility often requires considerable checking of records and Bylaw 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-district resident, by any member of the college or its employees is forbidden.
ACCESSIBILITY SUPPORT CENTER

The Accessibility Support Center (ASC) 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 ASC: 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 adaptions. For assistance, phone (831) 479-6379 or (831) 479-6370, or fax (831) 479-6393; TTY (831) 479-6421. Located in Library, upstairs.

TEXTBOOKS AND SUPPLIES

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

CalWORKs

California Work Opportunity and Responsibility to Kids (CalWORKs) is a state and county funded program available to students who are receiving cash aid county assistance for low income families with dependent children. CalWORKs assist families moving toward financial self-sufficiency by increasing skill levels, educational levels, and/or obtaining industry-relevant certification or licensure. Eligible students receive individual orientation and needs assessment, specialized academic counseling, and funds for training expenses, including enrollment fees, required textbooks, school supplies, uniforms and other required tools and materials, computer access and study area, and referrals to campus and community services. CalWORKs is located in the Student Resource & Support Network, SAC West 110 or call (831) 479-6344.

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 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 achieve their goals.

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, educational plans, priority registration, financial assistance, book vouchers, academic skills assessment, personal and vocational counseling, peer advising, tutorial and study skill assistance, and campus resource and community agency referrals. Interested students may contact the EOPS office, Room 907, 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 and currently receiving CalWORKS cash benefits. Additional services such as meal cards, gas cards, supplies, and financial assistance to offset childcare expenses may be awarded.

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.

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 (EFC) 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 class attendance 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), or a California Dream Application, listing Cabrillo College, Title IV Code #001124, among the colleges to receive the information. Financial aid applications are available online at www.fafsa.gov and http://dream.csac.ca.gov every year beginning in October 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:

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 Dream Act Application 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 2000-2001 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.

CA Promise Grant (CCPG) formerly known as the 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 AB540 by Admissions & Records, and either meet specified income criteria or be a current recipient or dependent of a recipient of TANF/CalWORKs, SSI/SSP or General Assistance, or have a dependent’s fee waiver from the Veteran’s Affairs Department, or Congressional Medal of Honor or 9-11 dependent, or dependent of a deceased law enforcement/fire suppression personnel killed in the line of duty, or have been determined to be eligible through the FAFSA or Dream application. The deadline to apply for CCPG is the last day of the term. Eligibility continues for the remainder of the terms within the school year. CCPG 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, or online at www.cabrillo.edu/services/finaid.

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.

Community College Completion Grant (CCCG)

These funds are given to eligible Cal Grant B and C students that have received a Full Time Student Success Grant (FTSSG) award for the same
term. The student must successfully complete a minimum of 15 units per term or 30 per year. Average award is $750 per semester.

**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 2018-2019, annual awards range from $650 to $6095.

**Federal Supplemental Educational Opportunity Grant (FSEOG)**

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

**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, up to 3 years total. 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 $5,000.

**Full Time Student Success Grant (FTSSG)**

These funds are given to eligible Cal Grant B and C eligible students that are enrolled full time or more. Average award is $500 per semester.

**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 and unsubsidized loans are announced each year on July 1st. The 2017-2018 interest rates were fixed at 4.45%. 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.

**SCHOLARSHIPS**

Each year Cabrillo College awards a number of scholarships ranging in amounts from $500 to $2,500. 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 February. 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.

**STUDENT HEALTH SERVICES (SHS)**

Student Health Services provides a variety of medical, personal counseling, and public 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 Center. 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. SHS provides brief strength based counseling with the goal of maximizing success. Personal counseling is offered to help students cope with stressors that are affecting their academic, career, or personal goals. Individual, family and group sessions are available. Crisis counseling is available on a walk-in basis with health center nurses or personal counselors. We believe in the 8 dimensions of wellness and that each dimension is interrelated with another; equally vital in the pursuit of optimum health.

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 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 benefit from priority admission and/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 sizes, 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 in the College of Letters and Sciences, 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.Go.Cabrillo.edu/honors

Honors Scholar Designation

To achieve the Honors Scholar designation, students must complete a minimum of 15 semester units of honors courses with a transferable GPA of 3.4 or higher. Students who successfully complete the 15-unit program receive the designation “Honors Scholar” posted on their transcript and 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, AH 13H, COMM 1H, ECON 1A, ECON 1B, ENGL 1AH, ENGL 1AMCH, ENGL 1BH, ENGL 2H, ENGL 2MCH, HIST 4AH, HIST 4BH, HIST 14AH, HIST 17AH, HIST 17BH, HIST 21AH, HIST 21BH, HONRS 1H*, 2H*, LIBR 10H, MATH 12H, PHILO 10H, PS 1H, PSYCH 1H, SOC 1H, SOC 2H

*Note: HONORS 1H and 2H do not transfer to the UC system.

A maximum of 6 units from the following coursework may also be counted toward the Honors Scholar designation with a Designated Honors Course Contract:

BIO 9A, BIO 9B, CHEM 1B, CHEM 12A/AL, CHEM 12B/BL, ECON 1A, ECON 1B, ENGL 30B, ENGL 34, ENGL 46A, ENGL 46B, HIST 2A, HIST 2B, HIST 19B, MATH 7, MATH 10B, MATH 153, PHYS 1B, PHYS 4C, SPAN 26

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.Go.Cabrillo.edu/honors

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.

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.

INTERNSHIPS & WORK EXPERIENCE OFFICE

The Internship and Work Experience office assists students in all aspects of participation in internships and work experience. We advise students, assist with finding internships and employment, and help prepare and enroll to get academic credit for on the job learning. We also help employers in addressing workforce needs including development, recruiting and staffing, and mentorship of internship and employment placements in accordance with Career Education and Academic programs at Cabrillo College.

Students participating in a work experience course can expect to develop professional experience, skills, and income while learning hands-on in their field of study. This professional experience — through internships, employment, or volunteering — prepares students to thrive and grow in their field. Students gain responsibility, confidence, and independence, and increase their value to employers.

The IWE office staff assist students in identifying career and employment goals, developing a professional profile (resumes, cover letters, etc.), searching, applying, and interviewing for positions. Once employed, students can receive academic credit by enrolling in a Work Experience course. In many Career Education programs, the credit can count toward completion of degrees and certificates. In some cases, credits will meet transfer requirements.

The office is located on the Aptos Campus in the SAC West Building, 1st Floor. For more information, call (831) 477-5650, e-mail cwee@cabrillo.edu, or visit the website: http://www.cabrillo.edu/academics/cwee.

ENGLISH LEARNING CENTER

The English Learning 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 English Learning 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.

The Reading Lab is also part of the English Learning Center at Cabrillo and 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 English Learning Center offers open-entry/open-exit individualized reading and vocabulary labs for those who prefer self-paced work.

The English Learning Center services are provided at both the Aptos campus and Watsonville Center. The English Learning Center hours will vary. See the Schedule of Classes for days and hours, or phone (831) 479-6167.
The English Learning Center courses (writing, ESL and reading) are credit/noncredit and open to all Cabrillo students.

**LEARNING COMMUNITIES CENTER**

Information on Cabrillo College Learning Communities can be found at the Learning Communities Center (LCC) in room 501, open 10:00a.m. to 3:00p.m., Monday through Thursday. This is the primary office for the ACE and STARS learning communities, and referrals and information are provided for other learning community programs and resources. The LCC is also a place where students in learning communities can work together between classes and access computers to enroll in classes or fill out college surveys. For more information, call (831) 477-3340.

**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 150,000 electronic books, as well as over 4,100 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 13 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 Claroread 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 7:45 a.m. – 8:00 p.m.
- Friday 9:00 a.m. – 4:00 p.m.
- Saturday 11:00 a.m. – 3:00 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 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 pre-requisites. 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 check-out mobile devices and laptops
MESA MATHEMATICS, ENGINEERING, SCIENCE ACHIEVEMENT

MESA is a nationally recognized program that has been assisting students in preparing for careers in math-based fields for over 40 years at the high school, university, and community college level throughout California. Cabrillo’s MESA Program has its home in the MESA Study Center, located in the STEM Center, Rm 834, 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 precalculus, calculus, and physics courses;
• A study center equipped with computers, science-related software, current textbooks to check out for two hours at a time, and a reference library of additional science and math textbooks;
• Drop-in tutoring in transfer-level math and sciences provided by math and science professionals and by Cabrillo and UCSC students;
• The opportunity to be a member of a supportive community of students all working toward transfer in a science, engineering, or math major; and
• Events throughout the semester to motivate and inspire, such as the Student Science Colloquia and the Transfer and Scholarship Celebrations.

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 our MESA counselor to establish and update education plans,
• Scholarships, internships, leadership retreats, and summer research programs;
• Field trips to industry sites, science museums, and prospective transfer universities;
• Long-term calculator 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.cabrillo-mesalomesa.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).

STUDENT RESOURCE & SUPPORT NETWORK (SRSN)

The Student Resource & Support Network is a one-stop center providing support services to low-income Cabrillo students, and students receiving benefits from specific grant programs. The Student Resource & Support Network works with agency partners such as CalWORKs (cash aid), WIOA (the Workforce Innovation and Opportunity Act), CalFresh (food stamps). The Student Resource & Support Network helps students identify and start on a career track that will lead to a family-supporting income, provides support in accessing public benefits, and provides financial coaching.

The Student Resource & Support Network office is located in Room SAC West 110, street level, and is open Monday-Thursday 8:00a.m.-5:00p.m., and Fridays 8:00a.m.-2:00p.m.. Students are encouraged to drop by for more information. The Network provides study space, academic counseling, peer advising, job retention and financial literacy workshops, resource and referral information, liaison with granting agencies, and program-specific support. Call (831) 479-6344. See our website and blog at www.cabrillo.edu/services/srsn/.

STUDENT RESOURCE CENTER AT THE WATSONVILLE CENTER

Students can access many services through the Student Resource Center in room A120 of the first floor in the main building (A), right down the hall from the Registration/Financial Aid office. Counseling, transfer information and representatives from four-year institutions, Health Services, assistance with online applications, and information/appointments for many departments are offered here, such as the Accessibility Support Center, Veteran’s Services, Learning Communities, EOPS-CARE, and Student Affairs.

THE STEM CENTER

The STEM Center is a comprehensive study center for students pursuing majors in the sciences, technology, engineering, and mathematics. It is home to the MESA program, the Physics Learning Center, and the Computer and Information Systems (CIS) Networking Lab.

Students will find computers; faculty available during office hours; drop-in tutoring for mathematics, physics, computer science, engineering, chemistry, biology, and geology; scheduled tutoring for CIS classes; CIS student assistants; workshops; rooms for group study or quiet study; and a community of students working together to progress through their science and math classes. The STEM Center is a resource available free of charge to any student interested in majoring in a STEM field, who is enrolled in a science or transfer-level mathematics class.

STUDENT EMPLOYMENT

The Student Employment Center promotes career development by connecting students and alumni with employers in the community, including many departments on the Cabrillo campus. The Student Employment Center offers the Seahawk online Job Board, job fairs, networking opportunities, workshops, and individual career coaching for reviewing resumes, cover letters, interview skills, and job search support. Additionally, all hiring paperwork for on campus student jobs is processed by the Student Employment Center.

The Student Employment Center provides online access to students, and is conveniently located in SAC West, on the street level. The Center enjoys the confidence of a wide range of employers who regularly list job openings. Student Employment services are integrated with the total educational process of the College and works cooperatively with Career Technical Departments, Financial Aid Office, and the Internship & Work Experience Program. 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 Procedure (AP) 5500 describing the procedures for student rights and responsibilities is available in the Office of the Dean of Student Services, SAC East Room 217. AP 5500 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, AP 5500.

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. Students enrolled in the program do not need to complete the college orientation nor the assessment tests unless they are working towards an academic certificate, degree, or transfer. 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/TTA) with a number of these. Students who are eligible may complete a TAG/TTA, 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, 2017 and must submit it online during the month of September for Fall 2018 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.

TUTORING CENTER

The Tutoring Center offers free group assistance to all Cabrillo College students, with special services available to students enrolled with the Accessibility Support Center (ASC) and certain career majors. All staff and many tutors are bilingual in Spanish and English.

The Center is open Monday -Thursday, 8:00 a.m.-5:00 p.m. and Friday 9:00 a.m.-1:00 p.m.

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, including Supplemental Instruction. Students have access to computers and printing, copier, study space for individuals and groups, course reserve materials, exam proctoring, a reference collection, and checkouts for laptops and reading materials. 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 8:00 a.m. to 8:00 p.m. Monday-Thursday and 8:00 a.m.-4:00 p.m. on Friday. Call (831) 786-4755 for more information.

WIOA

The Workforce Innovation and Opportunity Act (WIOA) is a federally funded program which supports low-income adults and dislocated workers who are seeking to improve their earning potential and career options by increasing skill levels, educational levels, and/or obtaining industry-relevant certification or licensure. Eligible students receive individual orientation and needs assessment, specialized academic counseling, and funds for training expenses, including enrollment fees, required textbooks, school supplies, uniforms and other required tools and materials, computer access and study area, and referrals to campus and community services. WIOA is located in the Student Resource & Support Network, SAC West 110 or call (831) 479-6344.
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.) may be in a specific field, or in Liberal Arts and Sciences with an emphasis in 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.

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.

The requirement for ten (10) units of unreplicated coursework in the major is waived for students who have been awarded a transferable degree from Cabrillo College and subsequently want to achieve an Associate Degree for Transfer (A.A.-T/A.S.-T) in that discipline under the following conditions:

1. The student is applying to transfer to a CSU for the following spring or fall term; and
2. The student meets the requirements for the A.A.-T/A.S.-T

The following Cabrillo College degree and general education requirements reflect the Cabrillo Governing Board Policies and Administrative Procedures 4100 and 4025 respectively.

Notes Common to all Non-Transferable Associate in Arts and Associate in Science Degrees below, are based upon 4100.01 and includes the Multicultural Requirement, the Mathematics Competency Requirement, and the Requirements for a Second Associate Degree. The criteria for AP 4025, General Education requirements, is reflected in its entirety in AP 4100.

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:**

a) Effectively communicate concepts from the biological sciences

b) Understand and apply the scientific method in the biological sciences

c) Demonstrate understanding of scientific principles from the biological sciences

d) Apply biological principles to interpret the observations of the natural world.

**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:**

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.

**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:**

a) Employ the methods and data that historians and social/behavioral scientists commonly use to investigate the human condition

b) Identify important information resources in history and the social/behavioral sciences

c) Examine institutions and processes across a range of historical periods and social settings

d) Use and critique models and methods for explaining behavior

e) Articulate and analyze alternative approaches to the solution of contemporary social issues.

**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:**

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

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

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

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

The Mathematics Requirement may be met by successful completion of intermediate algebra or equivalent or a higher-level mathematics requirement system.  

**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 minimum 3-unit course and excluding 200 to 500-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* 3, 3L(* 2*); 5*, 10*, 12A, 12AL*, 12B, 12BL*, 30A*, 30B*; 32; Engineering 3; Environmental Science 10, 10L*, 15, 15L*; Geography 1, 1L*, 3, 3L*; Geology 10*, 15, 20* 25; 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 4*, 5*, 6*, 9A*, 9B* (BIO 1ABC*), 11A*, 11B*, 11C*, 13A, 13AL*, 31; Horticulture 1A*, 1B*; Psychology 4, 4L*  

**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 3, 9A, #15, 25, #35, #35H, 45 (Beg. Fall ’16), #55; Art History 10, 11, 11H, 12, 13, 13H, 14, #16, #17, #18, #19, 20A, 20B, #52, 53; Dance #1; English 1B, 1BH, #1BMC, 12A, 12B, 12C, 12E, 12F, #24A, #24B, #27A, #27B, 30A, 30B, 34*, #39, #40, #41A, #45, 46A, 46B, 48A, 49A, 49B; French 1, 2, 3, 10; German 1, 2; History #2A, #2B, 4A, 4AH, 4B, 4BH, #27A, #27B; Italian 1, 2, 3, 10; Japanese 1, 2; Music 1, 5, 6, 10, #11A, #11LA, #12, #13A, 17A, 33A, 36, 38, 40, 46, 49, 51A, 58, 77; Philosophy 4, 6, 7, 8, 9, 10, 10H, #14, #15, 16, #17, 18; Spanish 1, 2, 3, 4, 5A, 6A, 6B, 10A, 10B, 16, 17, 25, 26, #30B; Theatre Arts 7, #8, 9, 10A, 13A, 28, 29  

**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 U.S. 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.  

The units will be counted only once for the degree.  

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Area D: Social Sciences
1) Select one U.S. History course from: History #14, #14H, #15, 17A, 17AH, 17B, 17BH, #21A, #21AH, #21B, #21BH, #29A, #29B
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, #17, #30; Bilingual/Bicultural Studies #32; Communication Studies 7, #12; Early Childhood Education 31, 32, #52; Economics 1A, 1B; English #27A, #27B; Geography #2, #4, 5; Health Science 15; History #2A, #2B, 4A, 4AH, 4B, 4BH, #6, 9, 11, #14, #14H, #15, #16A, #16B, #16C, 17A, 17AH, 17B, 17BH, #19B, #19C, #21A, #21AH, #21B, #21BH, 24, #27A, #27B, #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, 11, 12; Women's Studies 1, #2, #5, 11

Area E: Lifelong Learning and Self-Development
Select 3 units from: Communication Studies 7, #12, #14; Counseling & Guidance 1, 51 (beg. F'14), 52, 54; Early Childhood Education 31, 33; Health Science 10, 12, 15, 21, 22, 24; Nutrition 20, 22 (CAHM 20, 22); Psychology 33, 35ABC, 39ABC; Sociology 5; Women's Studies 1; DD214 (Military Credit).

Note: Beg. F'13, select ATH, DANCE and KIN Activity courses may also be used to meet Area E, when combined with other non-activity Area E units from the CG, NUTR (CAHM), or ECE departments.

Multicultural Requirement:
Choose one course marked with a # or ENGR 98A + 98B. 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 Interdisciplinary Studies 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 3 units from: English 1A, 1AH, #1AMC, #1AMCH Must be completed with a “C” or better. Note: ENGL 100 will meet this requirement for students with Catalog rights prior to F, 08.

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 minimum 3-unit course and excluding 200 to 500-level courses); Philosophy 12, 49, Psychology 2A

Area B: Scientific Inquiry
Select 3 units from:
B-1: Physical Universe
Astronomy 3, 4, 7, 8A*; Chemistry 1A, 1B*, 3, 3L* (2*), 5*, 10*, 12A, 12AL*, 12B, 12BL*, 30A*, 30B*; 32*; Engineering 3; Environmental Science 10, 10L*, 15, 15L*; Geography 1, 1L*, 3, 3L*; Geology 10*, 15, 20* 25; Oceanography 10*, Physics 2A*, 2B*, 4A*, 4B*, 4C*, 4D, 10, 10L*, 11*, 12

B-2: Life Forms
Anthropology 1, 1H*; Biology 4*, 5*, 6*, 9A*, 9B* (BIO 1ABC*), 11A*, 11B*, 11C*, 13A, 13AL*, 31; Horticulture 1A*, 1B*; Psychology 4, 4L*

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 1, 2, 3; Art 2A, 4, 5, 7A, 8A, 24; Art Photography 3, 9A, #15, 25, #35H, 45 (beg. F'16), #55; Art History 10, 11, 11H, 12, 13, 13H, 14, #16, #17, #18, #19, 20A, 20B, #52, 53; Dance #1; English 1B, 1BH, #1BMC, 12A, 12B, 12C, 12E, 12F, #24A, #24B, #27A, #27B, 30A, 30B, 34, #39, #40, #41A, #45, 46A, 46B, 48A, 49A, 49B; French 1, 2, 3, 10; German 1, 2; History #2A, #2B, 4A, 4AH, 4B, 4BH, #27A, #27B; Italian 1, 2, 3, 10; Japanese 1, 2; Music 1, 5, 6, 10, #11A, #11LA, #12, #13A, 17A, 33A, 36, 38, 40, 46, 49, 51A, 58, 77; Philosophy 4, 6, 7, 8, 9, 10, 10H, #14, #15, #16, #17, 18; Spanish 1, 2, 3, 4, 5A, 6A, 6B, 10A, 10B, 16, 17, 25, 26, #30B; Theatre Arts 7, #8, 9, 10A, 13A, 28, 29

Area D: Social Sciences
1) Select 3 units from: History #14, #14H, 15, 17A, 17AH, 17B, 17BH, #21A, #21AH, #21B, #21BH, #29A, #29B, PS 1, 1H, 5
2) Select 3 units from: Anthropology #2, #2H, #3, #6, #7, #8, #17, #18, #19, 20A, 20B, #52, 53; Bilingual/Bicultural Studies #32; Communication Studies 7, #12; Early Childhood Education 31, 32, #52; Economics 1A, 1B; English #27A, #27B; Geography #2, #4, 5; Health Science 15; History #2A, #2B, 4A, 4AH, 4B, 4BH, #6, 9, 11, #14, #14H, #15, #16A, #16B, #16C, 17A, 17AH, 17B, 17BH, #19B, #19C, #21A, #21AH, #21B, #21BH, 24, #27A, #27B, #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, 11, 12; Women's Studies 1, #2, #5, 11

Area E: Lifelong Learning and Self-Development
Select 3 units from: Communication Studies 7, #12, #14; Counseling & Guidance 1, 51 (beg. F'14), 52, 54; Early Childhood Education 31, 33; Health Science 10, 12, 15, 21, 22, 24; Nutrition 20, 22 (CAHM 20, 22); Psychology 33, 35ABC, 39ABC; Sociology 5; Women's Studies 1; DD214 (Military Credit).

Note: Beg. F'13, select ATH, DANCE and KIN Activity courses may also be used to meet Area E, when combined with other non-activity Area E units from the CG, NUTR (CAHM), or ECE departments.

Multicultural Requirement:
Choose one course marked with a # or ENGR 98A + 98B. 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.

Area B-3: Laboratory Science
Laboratory courses above are marked with an asterisk (*); a lab science is recommended.
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: 1-10 units
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.

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 four-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 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.
4. Certified full completion of the California State University General Education-Breadth pattern (CSU GE Breadth) or the Intersegmental General Education Transfer Curriculum (IGETC for CSU) pattern. Completion of one communication course is required.

Cabrillo offers several A.A.-T/A.S.-T degrees and more are under development. For more information, see a counselor. View information at: www.cabrillo.edu/services/articulation/adtdegrees.html

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.
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 or an approved pre-statistics course. (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 Guarantee (TAG)
While eligible students can be admitted to any UC campus, Cabrillo has special transfer admission agreements (TAGs) with Davis, Irvine, Merced, Riverside, Santa Barbara, 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, 2016, and must submit during the month of September. Contact the Counseling office at (831) 479-6274 or the Transfer/Career Center for more information.

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

Admission Requirements for CSU Transfer Students
For admission to the California State University as a transfer student, students must complete:

- 60 CSU transferable semester units (any course numbered 1-99).
- 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). Information on course transferability is included in each course description in the Cabrillo College Catalog and Schedules of Classes.
- One transferable college course in mathematics that has a pre-requisite of Intermediate Algebra, or an approved pre-statistics course.
- 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.

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 in the Transfer Credit line of 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. Cabrillo courses with approved C-ID designations are listed in the Catalog and Schedule of Classes with the Transfer Credit information for each course. Note: C-ID numbers for Cabrillo courses are being approved daily. For an 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 produces 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.

300-399

Courses numbered 300 through 399 are non-transferable, and are not intended as associate degree level courses. These courses are for basic skills and ESL and may be used towards a noncredit certificate of completion. These courses will not count in calculating the GPA for the associate degree.

400-499

Courses numbered 400 through 499 are non-transferable, and are not intended as associate degree level courses. These courses are intended for CTE and may be used towards a noncredit certificate of completion. They will not count in calculating the GPA for the associate degree.

500-599

Courses numbered 500 through 599 are noncredit courses, are non-transferable, and are not recorded on a transcript.
ACADEMIC PROGRAM

Academic Program: A collection or series of courses that lead to a degree, certificate, or transfer to another institution of higher education (Title 5, ACCJC program definitions, Title 5 TOP code specifications*). For purposes of college organization, a program is composed of all the degrees and certificates offered by a specific academic department. CTE departments that offer separate programs accredited by different outside accrediting agencies are considered one department that offers multiple programs.

For example, the ECE Program includes an AS and AS-T degree and all certificates offered by the ECE Department. The Spanish Program is the AA degree offered by the World Languages department. The Medical Assistant department offers two programs: Medical Assistant and Phlebotomy Technician because they are accredited by two separate outside accrediting agencies. Using this definition, there are a few programs that do not belong to a specific academic department (such as the General Science degree, Liberal Arts and Sciences degree or General Education).

Academic Department: A group of faculty in a related field of study or a discipline that offers an academic program. Departments are people. Programs are courses of study, certificates and degrees.

*The Taxonomy of Program (TOP) is a system of numerical codes used at the state level to collect and report information on programs and courses, in different colleges throughout the state, that have similar outcomes.

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).

PETITION FOR GRADUATION

Students planning to petition for graduation should first make an appointment with a counselor to verify that they are eligible for graduation. A student may complete EITHER the major requirements in effect at the time of the student’s initial enrollment, if the student has maintained continuous enrollment since then (see Catalog Rights page 37), OR the major requirements in effect at the time the student begins to maintain continuous enrollment, OR the major requirements in effect at the time of the student’s graduation. A Petition for Graduation will be completed with a Counselor and requires a half-hour appointment, during the semester in which the student requests to complete the requirements for graduation. Deadlines for filing a petition to graduate are found on the Admissions and Records Website: http://go.cabrillo.edu/calendar. A student must request IGETC or CSU GE-Breadth Certification, via WebAdvisor, Transcripts. See www.cabrillo.edu/services/ar/certification.html for more information.

SCHOLASTIC HONORS AT GRADUATION

“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 4.00 GPA shall be recognized as having achieved “High Honors”. “Honors Scholar” will be designated on the transcript if a student has completed 15 units of honors courses with an overall GPA of 3.4 and is a participant in the Honors Transfer Program. See page 42 for more details.
COMBINED REQUIREMENTS FOR THE ASSOCIATE DEGREES
AND CSU GENERAL EDUCATION TRANSFERABLE TO THE CSU (YELLOW)

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. Twelve (12) units in residence required. Twelve (12) units of courses may be taken for a “P” grade.

GENERAL EDUCATION:

<table>
<thead>
<tr>
<th>(39 UNITS) RECOMMENDED</th>
<th>(30 Required (Including all of Area A &amp; B4))</th>
</tr>
</thead>
<tbody>
<tr>
<td>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. Qtr. and semester units may be combined in Areas A-E to achieve the overall unit reqmt. for the Area.</td>
<td></td>
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</tbody>
</table>

AREA A: English Language Communication and Critical Thinking  Select one course from each of the three sub-areas: (9 UNITS)

* 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. (10 UNITS minimum)

B1 - Physical Universe (3-5 units): ASTRO 3, 4, 7, 8A*; CHEM 1A*, 1B*, 3, 3L* (2*), 5*, 10*, 12A, 12AL*, 12B, 12BL*, 30A*, 30B*, 32*; ENGR 3, ES 10, 10L*, 15, 15L*; GEOG 1, 1L*, 3, 3L* (METEO 1, 1H*); GEOL 10*, 15, 20*; OCEAN 10*; PHYS 2A*, 2B*, 4A*, 4B*, 4C*, 4D, 10, 10L*, 11*, 12

B2 - Life Forms (3-5 units): ANTHR 1, 1H, 1L*; BIO, 4*, 5*, 6*, 9A*, 9B* (BIO 1ABC*), 11A*, 11B*, 11C*, 13A, 13AL*, 31, PSYCH 4, 4L*

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, 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. (9 UNITS)

C1 - Arts: AH 10, 11, 11H, 12, 13, 13H, 14, #16, #17, #18, #19, 20A, 20B, #52, 53; AP #15, #35, #35H, 45 (beg. F’16), #55; DANCE #1; MUS 1, 5, 6, 10, #11A, #11LA, #12, #13A, 77; TA 7, #8, 9, 10A

C2 - Humanities: ASL(SLS) 1, 2, 3; ENGL 1B, 1BH, #1BM, 12A, 12B, 12C, 12E, 12F, #24A, #24B, #27A, #27B, 30A, 30B, 34, #39, #40, #41A, #45, 46A, 46B, 48A, 49A, 49B; FR 1, 2, 3, 10; GRMN 1, 2; HIST #2A, #2B, 4A, 4AH, 4BH, #27A, #27B; ITAL 1, 2, 3, 10; JAPAN 1, 2; PHILO 4, 6, 7, 8, 9, 10H, #14, #15, 16, #17, 18; SPAN 1, 2, 3, 4, 5A, 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 1BM 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.

ENGL 27A, 27B, and HIST 2A, 2B, 4A/4AH & 4B/4BH, 27A, 27B can be used in either Area C or D, but not both.

continued, page
**AREA D: Social Sciences** Select three courses–No more than two courses may be counted from any single department. (9 UNITS)

- ANTHR #2, #2H, #3, #6, #7, #8, #17, 30, #30; COMM 7, #12; ECE 31, 32; ECON 1A, 1B; ENGL #27A, #27B; GEOG #2, #4, 5; HS 15;
- HIST #2A, #2B, 4A, 4AH, 4B, 4BH, #6, 9, 11, #14*, #14H*, #15*, #16A, #16B, #16C, 17A*, 17AH*, 17B*, 17BH*, #19B, #19C, #21A*,
  #21AH*, #21B*, #21BH*, 24, #27A, #27B, #29A*, #29B*; JOURN 21; PS 1*, 1H*, 2, 3, 5*; PSYCH 1, 1H, 2, 6, 8, 12, 26, 31, 33; SOC 1, 1H, #2,
  #2H, #3, 5, #8, #9, 10, 11, 47; WS 1,#2,1

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

ENGL 27A, 27B, and HIST 2A, 2B, 4A/4AH & 4B/4BH, 27A, 27B 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, 51 (beg F’15); ECE 31, 33; HS 10, 12, 15, 21, 22, 24; NUTR 20, 22 (CAHM 20, 22); *PSYCH 33, 35ABC, 39ABC; SOC 5; WS 1; **DD214 (Military Credit)**
  **Student must have CSU GE Fully Certified. *Students must complete PSYCH 35, 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. Note: PSYCH 37ABC may be used for Area E if taken prior to F’14.**

**Beg F’13 select ATH, DANCE and KIN Activity courses may also be used to meet Area E if combined with other non-activity Area E units from the CG, NUTR (CAHM), or ECE departments.**

*****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 COMM 14, ECE 52, ENGR 98A + 98B, 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). Beginning F’14, this emphasis is limited to Interdisciplinary Studies - 6 courses from a combination of Areas A, B4, C & D. (18-30 UNITS)**

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.

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

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.
**COMBINED REQUIREMENTS FOR THE ASSOCIATE DEGREES**
**AND THE IGETC (LAVENDAR)**

<table>
<thead>
<tr>
<th>UC Requirements for the IGETC A.A. Degree (2.4 GPA required):</th>
<th>CSU Requirements for the IGETC A.A. degree (2.0 GPA required):</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 60 UC transferable units;</td>
<td>1. General Education – Complete IGETC Areas 1-5; to include</td>
</tr>
<tr>
<td>2. General Education - Complete IGETC Areas 1-5 plus the foreign</td>
<td>Area 1C – Oral Communication;</td>
</tr>
<tr>
<td>language requirement;</td>
<td>3. Complete one multicultural course;</td>
</tr>
<tr>
<td>3. Complete one multicultural course;</td>
<td>4. Major-seek Major section below.</td>
</tr>
<tr>
<td>4. Major-seek Major section below.</td>
<td>Note: GE and Major courses must be completed with a &quot;C&quot; or better.</td>
</tr>
</tbody>
</table>

**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. 3 semester/4 quarter units minimum each.

**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 quarter units, minimum.

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. 3 semester/4 quarter units minimum each.

- Arts: AH 10, 11, 1H, 12, 13, 13H, 14, #16, #17, #18, #19, 20A, 20B, #52, 53; AP #15, #35, #35H, 45 (beg. F'16), #55; DANCE #1; MUS 1, 5, 6, 10, 11A, 11LA, #12, #13A, 77; TA #8, 9
- Humanities: ASL (SLS) 3; ENGL 1B, 1BH, #1BMC, #24A, #24B, #27A, #27B, 30A, 30B, 34, #39, #40, #41A, #45, 46A, 46B, 48A, 49A; FR 3; HIST #2A, #2B, 4A, 4AH, 4B, 4BH, #27A, #27B; ITAL 3; PHILO 4, 6, 7, 8, 9, 10, 10H, #14, #15, 16, #17, 18; SPAN 3, 4, 6A, 6B, 16 (beg. F'16), 17 (beg. F'16), 25, 26, #30B

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

**Area 4: Social & Behavioral Sciences:** 3 courses from at least 2 disciplines or an interdisciplinary sequence. 3 semester/4 quarter units minimum each.

- ANTHR #2, #2H, #3, #6, #7, #8, #17, #30; BBS #32; COMM 12 (beg. F'13); ECE 31, 32; ECON 1A, 1B; ENGL #27A, #27B; GEOG #2, #4, 5; HS 15; HIST #2A, #2B, 4A, 4AH, 4BH, 4BL, #6, 9, 11, #14*, #14H*, #15*, #16A, #16B, #16C, 17A*, 17AH*, 17B*, 17B*, #19B, #19C, #21AH*, #21B*, #21BH*, #21BH*, 24, #27A, #27B, #29A*, #29B*; JOURN 21; PS 1*, #2, #3, 5, 5*; PSYCH 1, 1H, 2B (beg. F'14), 6, 8, 12, 26, 31, 33; SOC 1, 1H, #2, #2H, #3, #5, #8, #9, 10, 11, 47; WS 1, 2, 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 each 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.**

**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 (Minimum lecture units 3 semester/4 quarter). Laboratory sciences are marked +.

- Physical Science (3-5 units)-ASTRO 3, 4, 7, +8A; CHEM +1A, +1B, 3, +3L (+2), +5, +10, 12A, +12AL, 12B, +12BL; ENGR 3; ES 10, +10L, 15, +15L; GEOG 1, +1L, 3, +3L (METEO 1, +1L); GEOL +10, 15, +20; OCEAN +10; PHYS +2A, +2B, +4A, +4B, +4C, 4D, 10, +10L, +11, 12
- Biological Science (3-5 units)-ANTHR 1, 1H, +1L; BIO +4, +5, +6, +9A, +9B, (BIO+1ABC) +11A, +11B, +11C, 13A, +13AL, 31, PSYCH 4, +4L

**continued, next page**
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: 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 with a #, or ENGR 98A + 98B, 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 student beginning F’08. Beginning F’14, this emphasis is limited to Interdisciplinary Studies – 6 courses from a combination of Areas A, B4, C & D on the CSU GE list. The complete list of approved courses for this area of emphasis is listed in this Catalog under Liberal Arts a& Sciences

(18-30 units) For students beginning F’10, all courses in the major or emphasis must be completed with a “C” or better.

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.

Twelve (12) units in residence is required. Twelve (12) units of courses may be taken for a “P” grade.
<table>
<thead>
<tr>
<th>Degree(s)</th>
<th>Certificate of Achievement</th>
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A.A. is an Associate in Arts Degree
A.S. is an Associate in Science Degree
A.A.-T is an Associate in Science for Transfer Degree
A.S.-T is an Associate in Arts for Transfer Degree
Cert is a Certificate of Achievement
SKILLS
CERTIFICATES

Accounting/Finance:
Bookkeeping
Financial Management

Art History:
Creative Careers: Discovering Self-Directed Pathways

Art Photography:
Creative Careers: Discovering Self-Directed Pathways
Digital Photography
Historical and Alternative Photography Processes
Image Literacy: Photography & Moving Images
Moving Image Arts
Traditional Black and White Photography

Art-Studio:
Creative Careers: Discovering Self-Directed Pathways

Business:
Entrepreneurships/Small Business

Computer Applications/Business Technology:
Computer Proficiency
Office Software
Social Media

Computer and Information Systems:
Cisco Certified Network Associate (CCNA)
Cybersecurity
Microsoft System Administration
UNIX/Linux System Administration

Computer Support
A+ Preparation
Computer Support Technician 1

Computer Science:
Game Programming
Mobile Applications
Web Programming Fundamentals

Construction and Energy Management:
Basic Energy Management
Building Performance Energy Management
Construction Basics
Construction Building Inspection and Codes
Construction Business Management
Construction Career Path
Construction Electrical Inspection and Codes
Construction Plumbing/Mechanical Inspection & Codes
Construction Project Management
Construction Trade
Solar Derived Energy Management

Culinary Arts & Hospitality Management:
Enter Level Baking
Entry Level Cook
Entry Level Catering
Wine and Wine Service
Wine Tasting Room Management
World Wines

Dance:
Choreographic Studies
Creative Careers: Discovering Self-Directed Pathways
Social and Urban Dance

Digital Management and Career Preparation:
Foundations in Leadership and Management

Digital Media:
Animation
Cinema Arts
Creative Careers: Discovering Self-Directed Pathways
Graphic Imaging
Motion Graphics
Motion Media
Publication Design
Video Production
Web Production
Website Design

Early Childhood Education:
Spanish/English Early Childhood Teaching

Engineering Technology:
Architecture Drafting & Design
Civil/Survey Drafting

Computer Aided Drafting & Design
Computer Animation
Manufacturing Specialist
Technology and Trades

Horticulture:
Arboriculture
General Horticulture
Greenhouse and Nursery Management
Landscape Design
Landscaping
Permaculture
Sustainable and Organic Food Production

Human Services:
Drug and Alcohol Studies
Generalist Practice

Kinesiology:
Personal Trainer Certification

Latino/A Studies:
Latin American and Latino/a Studies

Medical Assisting:
Medical Office Receptionist
Phlebotomy Technician

Music:
Classical Guitar
Creative Careers: Discovering Self-Directed Pathways
Jazz/Pop Voice
Jazz/Rock Guitar
Jazz Studies
Latin American Music
Music Technology
Piano
Voice

Radiologic Technology:
Computed Tomography
Venipuncture

Theatre Arts/Drama:
Creative Careers: Discovering Self-Directed Pathways
Musical Theatre
Technical Theatre

Welding:
Basic Welding
Advanced Welding
Our programs work! A spring 2014 survey showed that those who completed a Cabrillo certificate or degree earned an average hourly wage increase in salary of 49% after completing school. Program information can be found in this Catalog under the program name and on our website, cabrillo.edu/services/careered/.

### Building Inspection
- Building Inspector, Public Works Inspector

### Construction Management
- Contractor, Project Manager, Site Superintendent, Estimator

### Culinary Arts and Hospitality Management
- Food Service Manager, Cook

### Energy Management
- Contractor, Project Manager, Estimator, Installer

### Early Childhood Education
- Infant-toddler specialist, children's center teacher, family childcare provider, director or administrator in state-funded, public, or private early care and education settings.

### Horticulture

### Human Services
- Counselor, Mental Health Technician, Advocate, Social Work Assistant, Community Outreach Worker, Drug and Alcohol Counselor, Case Management, Aide, Residential Counselor, Probation Officer, Eligibility and Outreach Worker, Gerontology Aide

### Journalism
- Reporter, Writer, Editor, Digital Photography, Photo Journalist, Page Designer, Prepress Publication, TV News Correspondent/Anchor, Camera Operator, Multimedia Editor and Web Designer, Video Editor, Radio Correspondent, Advertising Sales Manager

### Welding
- AWS–SCWI Senior Certified Welding Inspector
- AWS–CWE Certified Welding Educator

### BUSINESS & COMPUTERS

#### Accounting/Finance
- Bookkeeping, Auditing, Tax/Payroll, Accounting, General Office, Self Employment

#### Administrative Support
- Office Assistant, Receptionist, General Office

#### Architectural Drafting & Design
- Architectural Designer/Draftsperson, Architectural Intern

#### Business
- Entry level and job advancement to middle management

#### Civil Survey Drafting & Design
- Civil Survey Designer/Draftsperson, Civil Survey Assistant

#### Computer Aided Drafting & Design
- CAD Operator, CAD/CAM Technician

#### Computer Animation
- Animation Artist, 3-D Designer/Draftsperson, Computer Animation Tech, Solid Modeler

#### Computer/Business Applications
- Administrative Assistant, Customer Service, Office Administration

#### Computer Networking and System Administration
- Network Administrator, Network Technician, System Administrator, Information Security Specialist

#### Computer Science
- Computer Programming: C++, Java, Perl, Computer Engineering, Computer Science Software Engineering, Game Programming

#### Computer Support
- Technical Support, A+ Certification, Hardware and Software Support

#### Digital Imaging
- Digital Illustrator, Digital Photo Editor, Photo Image Compositor

#### Digital Publishing
- E-publishing, Digital Publishing, Illustrator, Graphic Designer, Digital Photographer

#### Digital Video
- Digital Video Producer and Editor
COME STUDY WITH US FOR AN EDUCATION THAT WILL WORK FOR YOU!

**eCommerce**

see Business and Digital Media Departments

eCommerce Site Designer and Producer, eCommerce Business Operator

**Engineering Technology**

see Engineering Technology Department

Engineering Technician Circuit Designer, Drafting and Design Tech, Manufacturing Tech

**Manufacturing Specialist**

see Engineering Technology Department

Electronics Assembler, Manufacturing Specialist

**Print Media**

see Digital Media Department

Graphic Production, Artist Graphic Designer

**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

Web Programmer, Content Manager, Webmaster, User Experience (UX) Designer

**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 Technology**

see Fire Technology Department

Fire Fighter, Fire Prevention
Program Description:
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 health care, 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 ACE’s website for more information: http://www.cabrillo.edu/academics/ace/.

Please see page 152 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, Department Chair, (831) 477-3201
Aptos Counseling: (831) 479-6274 for appointment
Watsonville Counseling: (831) 786-4734
Call (831) 479-6478 for more information
http://www.cabrillo.edu/programs

ACCOUNTING
Accounting A.S. Degree
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.

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

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
Core Courses (24-25 units)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 1A</td>
<td>Financial Accounting</td>
<td>4</td>
</tr>
<tr>
<td>ACCT 6</td>
<td>Spreadsheets for Accounting</td>
<td>4</td>
</tr>
<tr>
<td>ACCT 16</td>
<td>Accounting Ethics</td>
<td>4</td>
</tr>
<tr>
<td>or PHILO 10</td>
<td>Ethics</td>
<td>3</td>
</tr>
<tr>
<td>or PHILO 10H</td>
<td>Honors Ethics</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 151A</td>
<td>Introduction to Accounting: Bookkeeping Concepts</td>
<td>4</td>
</tr>
<tr>
<td>ACCT 163</td>
<td>Using QuickBooks</td>
<td>3</td>
</tr>
<tr>
<td>BUS 5</td>
<td>Business Information Systems</td>
<td>4</td>
</tr>
<tr>
<td>CABT 102</td>
<td>10-Key Calculator</td>
<td>1</td>
</tr>
<tr>
<td>CABT 110A*</td>
<td>Computer Keyboarding-Alphabet Keys</td>
<td>0.5</td>
</tr>
<tr>
<td>CABT 110B*</td>
<td>Computer Keyboarding-Numbers/Symbols</td>
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</table>
### Approved Electives (9 Units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 1B</td>
<td>Managerial Accounting</td>
<td>4</td>
</tr>
<tr>
<td>ACCT 54A</td>
<td>Income Tax I, Individual</td>
<td>4</td>
</tr>
<tr>
<td>ACCT 199C</td>
<td>Career Work Experience Education</td>
<td>0.5 - 4</td>
</tr>
<tr>
<td>BUS 9</td>
<td>Business Statistics</td>
<td>3</td>
</tr>
<tr>
<td>BUS 18</td>
<td>Business Law</td>
<td>4</td>
</tr>
<tr>
<td>BUS 20</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 52</td>
<td>Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>BUS 60</td>
<td>International Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 163</td>
<td>Global Business Management</td>
<td>3</td>
</tr>
<tr>
<td>FIN 4</td>
<td>Money Management</td>
<td>4</td>
</tr>
<tr>
<td>FIN 10</td>
<td>Introduction to Investments</td>
<td>4</td>
</tr>
</tbody>
</table>

#### Electives (5-6 Units)

(Any Course numbered 1-199)

**TOTAL Units**: 5 - 6

*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 CABT instructor for more information.*

### Accounting Certificate of Achievement

**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.

### Core Courses (24-25 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 1A</td>
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<td>ACCT 151A</td>
<td>Introduction to Accounting:</td>
<td>3</td>
</tr>
<tr>
<td>or ACCT 163</td>
<td>Using QuickBooks</td>
<td>4</td>
</tr>
<tr>
<td>or BUS 5</td>
<td>Business Information Systems</td>
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</tr>
<tr>
<td>or CABT 102</td>
<td>10-Key Calculator</td>
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<tr>
<td>or CABT 110B*</td>
<td>Computer Keyboarding-Numbers/Symbols</td>
<td>0.5</td>
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</table>

#### Required Courses (3 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 100</td>
<td>Elements of Writing</td>
<td>3</td>
</tr>
<tr>
<td>or ESL 100</td>
<td>High Advanced Academic ESL</td>
<td>4-6</td>
</tr>
<tr>
<td>or ENGL 1A/1AH/1AMC/1AMCH</td>
<td>Elements of Writing</td>
<td>3</td>
</tr>
<tr>
<td>or CABT 157</td>
<td>Business and Technical Writing</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL Units**: 27 - 31

*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 CABT instructor for more information.*

### Bookkeeping Skills Certificate

**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.

### Core Courses - Level 1

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 151A</td>
<td>Introduction to Accounting:</td>
<td>4</td>
</tr>
<tr>
<td>or BUS 5</td>
<td>Business Information Systems</td>
<td>4</td>
</tr>
<tr>
<td>or CABT 110A*</td>
<td>Computer Keyboarding-Alphabet Keys</td>
<td>0.5</td>
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<td>10-Key Calculator</td>
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</tbody>
</table>

#### Required Courses (3-6 units)

<table>
<thead>
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</thead>
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<tr>
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</tr>
<tr>
<td>or CABT 157</td>
<td>Business and Technical Writing</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL Units**: 13-16

### Financial Management Skills Certificate

**Learning Outcomes:**

1. Develop and maintain an understanding of the operations and fundamentals of financial statements and the investment market available to investors such as stocks, bonds, mutual funds, etc.
2. Develop an understanding of personal financial management processes such as budgeting, personal taxation, home/auto purchases, consumer credit issues.

#### Skills Certificate Required Courses (16 units)

<table>
<thead>
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<th>Description</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 1A</td>
<td>Financial Accounting</td>
<td>4</td>
</tr>
<tr>
<td>or BUS 18</td>
<td>Business Law</td>
<td>4</td>
</tr>
<tr>
<td>or FIN 4</td>
<td>Money Management</td>
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</tr>
<tr>
<td>or FIN 10</td>
<td>Introduction to Investments</td>
<td>4</td>
</tr>
</tbody>
</table>

**TOTAL Units**: 16

*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 CABT instructor for more information.*

### Accounting Courses

#### ACCT 1A Financial Accounting

4 units; 4 hours Lecture, 1 hour Laboratory

**Recommended Preparation:** ACCT 151A

**Repeatability:** May be taken a total of 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.
Repeatability: May be taken a total of 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 and BUS 5 or CABT 41.
Repeatability: May be taken a total of 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 16  Accounting Ethics
4 units; 4 hours Lecture
Prerequisite: ACCT 1A.
Repeatability: May be taken a total of 1 time.
Analyzes the role of ethics in today’s accounting profession. Studies classical ethical theory, relating those theories to the AICPA’s Standards of Ethical Conduct and applying those combined theories and rules to ethical problems found in today’s accounting world. 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: ENGL 100 or ESL 100 and READ 100.
Recommended Preparation: ACCT 151A or ACCT 1A; Eligibility for MATH 154.
Repeatability: May be taken a total of 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
Repeatability: May be taken a total of 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: Non-transferable.

ACCT 155  Payroll Tax Accounting with Accounting Software
4 units; 4 hours Lecture, 2 hours Laboratory
Repeatability: May be taken a total of 1 time.
Introducing payroll accounting. Includes payroll calculations and federal and California payroll tax requirements for withholding and reporting. Also covers labor laws, the importance of internal control, retirement plans, and workers’ compensation programs along with current events in this area. May be offered in a Distance-Learning Format.
Transfer Credit: Non-transferable.

ACCT 163  Using QuickBooks
3 units; 3 hours Lecture, 1 hour Laboratory
Prerequisite: ACCT 151A.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

Finance Courses

FIN 4  Money Management
4 units; 3 hours Lecture, 2 hours Laboratory
Recommended Preparation: BUS 155.
Repeatability: May be taken a total of 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; UC.

FIN 10  Introduction to Investments
4 units; 3 hours Lecture, 2 hours Laboratory
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 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 may be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.
ADAPTIVE PHYSICAL EDUCATION
Health, Athletics, Wellness, and Kinesiology Division

Cynthia S. T. FitzGerald, PhD
HAWK Division, Associate Dean for Allied Health,
SDLC & Adaptive Physical Education
(831) 477-3303 (mornings);
(831) 477-3278 (afternoons)
Aptos Counseling: (831) 479-6274 for appointment
Watsonville Counseling: (831) 786-4734
Call (831) 479-6266 for more information
http://www.cabrillo.edu/programs

ADAPT 79 Integrated Dance: Dance for All Bodies and Abilities
0.5 – 2 units; 0 hour Lecture, 1 – 4 hours Laboratory
Repeatability: May be taken a total of 1 time.
Introduces students with adaptive needs to the art of dance. Mainstream students to techniques for dancing together, expanding body and spatial awareness, coordination, and movement vocabulary while developing physical ability and creative expression.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all ATH & KIN activity courses combined: maximum credit- 4 units.

ADAPT 90 Adaptive Swimming
0.5 – 2 units; 0 hour Lecture, 1 – 4 hours Laboratory
Repeatability: May be taken a total of 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; 0 hour Lecture, 1 – 4 hours Laboratory
Repeatability: May be taken a total of 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 93 Exercise and Fitness-Adaptive
0.5 – 2 units; 0 hour Lecture, 1 – 4 hours Laboratory
Repeatability: May be taken a total of 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; 0 hour Lecture, 1 – 3 hours Laboratory
Repeatability: May be taken a total of 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; 0 hour Lecture, 1 – 4 hours Laboratory
Repeatability: May be taken a total of 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: maximum credit-4 units.
ALLIED HEALTH
Health, Athletics, Wellness, and Kinesiology Division
Cynthia S. T. FitzGerald, PhD
HAWK Division, Associate Dean for Allied Health, SDLC & APE
Aptos Counseling: (831) 479-6274 for appointment
Watsonville Counseling: (831) 786-4734
Call (831) 479-6266 for more information
http://www.cabrillo.edu/programs

ALH 100A-Z Special Topics in Allied Health Careers
0.5 – 3 units; 0.5 – 3 hours Lecture or 1.5 – 9 hours Laboratory
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

ALH 101 A Review of Anatomy and Physiology
2 units; 2 hours Lecture
Prerequisite: BIO 4 and BIO 5
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

ALH 110 Allied Health Foundation Course
1 unit; 2 hours Laboratory
Repeatability: May be taken a total of 1 time.
Teaches allied health students medical professional behaviors that lead to academic and professional career success, including self-discipline, leadership, effective teamwork, multicultural awareness, and working styles.
Transfer Credit: Non-transferable.
AMERICAN SIGN LANGUAGE
Business, English, and Language Arts
James Weckler, Division Dean
Division Office, Room 301
Francisco Iñiguez, Department Chair, (831) 479-6407
Aptos Counseling: (831) 479-6274 for appointment
Watsonville Counseling: (831) 786-4734
Call (831) 479-6478 for more information
http://www.cabrillo.edu/programs

ASL 1 Elementary American Sign Language I
5 units; 4 hours Lecture, 3 hours Laboratory
Repeatability: May be taken a total of 1 time.
Develops basic receptive and expressive signing skills within the context of Deaf culture. Students communicate through class activities and begin study of Deaf culture and society. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC: Corresponds to two years of high school study.

ASL 2 Elementary American Sign Language II
5 units; 4 hours Lecture, 3 hours Laboratory
Prerequisite: ASL 1 or equivalent skills.
Repeatability: May be taken a total of 1 time.
Practices and builds upon basic receptive and expressive signing skills within the context of Deaf culture. Students communicate through class activities and continue study of Deaf culture and society. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC.

ASL 3 Intermediate American Sign Language I
5 units; 4 hours Lecture, 3 hours Laboratory
Prerequisite: ASL 2 or equivalent skills.
Repeatability: May be taken a total of 1 time.
Develops intermediate ASL skills; includes review of grammar. Presents Deaf culture and community through readings, videos and discussions in ASL. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC.

ANTHROPOLOGY
Human Arts and Social Sciences Division
Paul Harvell, Division Dean
Division Office, Room 420
Kristin Wilson, Department Chair, (831) 477-3253
Aptos Counseling: (831) 479-6274 for appointment
Watsonville Counseling: (831) 786-4734
Call (831) 479-6297 for more information
http://www.cabrillo.edu/programs

Anthropology A.A.-T Transfer Degree
Anthropology is a multidisciplinary holistic way to study all aspects of humanity, from biological origins to ways of social behavior, past and present. Anthropology presents to the student a world view that is personally enriching as well as practical. Students who achieve an Associate in Arts in Anthropology and a baccalaureate degree pursue the fields of anthropology, archaeology, sociology, research, travel, and international trade and communication. Graduate degrees allow one to assume positions as an anthropologist, archaeologist, instructor or professor, or positions in forensics, museums, international aid, or research.
Cabrillo offers options for degrees in Anthropology. The first option listed below is the Associate in Arts in Anthropology for Transfer (A.A.-T in Anthropology), which is intended for students who plan to transfer and complete a bachelor's degree in Anthropology or a similar major at a CSU campus. Students completing the Associate in Arts in Anthropology for Transfer are guaranteed admission to the CSU system, but not to a particular campus or major. This A.A.-T in Anthropology 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, or a “P” if the course is taken on a “Pass/No Pass” basis.
• Certified completion of the California State University General Education- Breadth pattern (CSU GE Breadth) or the Intersegmental General Education Transfer Curriculum (IGETC) pattern.

Learning Outcomes
The Cabrillo College Core Competencies (with an emphasis in the study of Anthropology):
1. Communication: Reading, Writing, Listening, Speaking and/or Conversing
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving


CSU or IGETC for CSU General Education Requirements 37-39 Units

Core (9 units)

- ANTHR 1 Introduction to Anthropology: Biological .......... 3
- ANTHR 1H Honors Introduction to Anthropology: Biological .................................................. 3
- ANTHR 2 Introduction to Anthropology: Cultural .......... 3
- ANTHR 2H Honors Introduction to Anthropology: Cultural 3
- ANTHR 3 Introduction to Anthropology: Archaeology ...... 3

List A-Select 1 course from:

- Any lower-division major preparation course articulated to the major at a CSU or
- ANTHR 7 Peoples and Cultures of Non-Western Tradition: North America .......... 3
- ANTHR 26 Archaeological Field School ............................... 5
- BUS 9 Business Statistics ..................................................... 3
- FR 3 Intermediate French I .................................................. 5
- GEOG 4 World Regional Geography ................................. 3
- GEO 20 Historical Geology .................................................. 4
- HORT 2 Soil Science and Management .............................. 4
- ITAL 3 Intermediate Italian I ............................................... 5
- MATH 12 Elementary Statistics ........................................... 5
- or
- MATH 12H Honors Elementary Statistics ......................... 5
- OCEAN 10 Introduction to Oceanography ......................... 4
- PSYCH 2A Statistics for Behavioral Sciences .................... 3
- SPAN 3 Intermediate Spanish I .......................................... 5
- SPAN 4 Intermediate Spanish II ......................................... 5

List B-Select 1 course from:

- Any course not used from List A above or
- BIO 4 Human Anatomy ....................................................... 4
- GEO 10 Physical Geology ................................................... 4
- PSYCH 2B Research Methods in Psychology ........................ 4

List C-Select 3 units from:

- Any course not used from Lists A or B above or
- ANTHR 6 Peoples and Cultures of Non-Western Tradition: California .......... 3
- ANTHR 8 Anthropology of Religion ..................................... 3
- ANTHR 13 Forensic Anthropology ..................................... 3
- ANTHR 17 Global Perspectives of Food and Culture ........... 3
- ENGL 18MC Composition and Literature: Multicultural Emphasis ........................................ 3
- COMM 12 Intercultural Communication ............................. 3
- GEOG 2 Cultural Geography ................................................. 3
- PSYCH 6 Introduction to Social Psychology ........................ 3
- SOC 5 Gender and Society ................................................... 3
- SOC 8 Introduction to Latino/a Studies .............................. 3
- SOC 9 Globalization and Society ........................................... 3
- WS 1 Introduction to Women’s Studies .............................. 3
- WS 2 Global Perspectives on Women and Gender .......... 3

Total Units 60

Note: All courses except ANTHR 13, ANTHR 26 and HORT 2 are also CSU general education courses.

Anthropology A.A. Degree

Career Opportunities

Career opportunities include archaeologist, museum director, teacher, health assistance occupations, tour leader, civil service in national parks, international aid officials, or college instructor. See the Career Center or talk to the anthropology faculty about such opportunities.

Learning Outcomes

The Cabrillo College Core Competencies (with an emphasis in the study of Anthropology):

1. Communication: Reading, Writing, Listening, Speaking and/or Conversing
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving

Model Program in Anthropology

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 (13 Units)

- ANTHR 1 Introduction to Anthropology: Biological .......... 3
- ANTHR 1H Honors Introduction to Anthropology: Biological .................................................. 3
- ANTHR 1L Biological Anthropology Lab ............................. 1
- ANTHR 2 Introduction to Anthropology: Cultural .......... 3
- ANTHR 2H Honors Introduction to Anthropology: Cultural 3
- ANTHR 3 Introduction to Anthropology: Archaeology ...... 3
- ANTHR 8 Anthropology of Religion .................................... 3
- ANTHR 13 Forensic Anthropology ..................................... 3
- ENGL 1BMC Composition and Literature: Multicultural Emphasis ........................................ 3
- COMM 12 Intercultural Communication ............................. 3
- GEOG 2 Cultural Geography ................................................. 3
- PSYCH 6 Introduction to Social Psychology ........................ 3
- SOC 5 Gender and Society ................................................... 3
- SOC 8 Introduction to Latino/a Studies .............................. 3
- SOC 9 Globalization and Society ........................................... 3
- WS 1 Introduction to Women’s Studies .............................. 3
- WS 2 Global Perspectives on Women and Gender .......... 3

continued, next page
Approved Electives Units
(Choose 9 units)

ANTHR 6 Peoples and Cultures of Non-Western Tradition: California.........................................................3
ANTHR 7 Peoples and Cultures of Non-Western Tradition: North America ............................................. 3
ANTHR 8 Anthropology of Religion..................................................3
ANTHR 13 Forensic Anthropology ..................................................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
Repeatability: May be taken a total of 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. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC. C-ID: ANTH 110

ANTHR 1L Biological Anthropology Lab
1 unit; 0 hour Lecture, 3 hours Laboratory
Hybrid Requisite: Completion of or concurrent enrollment in ANTHR 1
Repeatability: May be taken a total of 1 time.
Provides a hands-on exploration of topics in biological anthropology. Areas investigated include human genetics, evolutionary forces, human osteology, forensic anthropology, comparative and functional skeletal anatomy, primate behavior, human fossil record, and modern human variation. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC. C-ID: ANTH 111L

ANTHR 2 Introduction to Anthropology: Cultural
3 units; 3 hours Lecture
Repeatability: May be taken a total of 1 time.
Presents a cross-cultural, comparative study of contemporary human behavior with emphasis on the effects of globalization on contemporary cultures. Topics investigated include cultural patterns, language, subsistence, economics, religion, kinship, values and norms, sex and gender, marriage, cultural change, and migration. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC. C-ID: ANTH 120

ANTHR 2H Honors Introduction to Anthropology: Cultural
3 units; 3 hours Lecture
Prerequisite: Honors standing.
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken a total of 1 time.
Presents a cross-cultural, comparative study of contemporary human behavior with emphasis on the effects of globalization on contemporary cultures. Investigates cultural patterns, language, subsistence, economics, religion, kinship, values and norms, sex and gender, marriage, cultural change, and migration. Highlights student research, writing, and reporting.
Transfer Credit: Transfers to CSU; UC. C-ID: ANTH 120

ANTHR 3 Introduction to Anthropology: Archaeology
3 units; 3 hours Lecture
Repeatability: May be taken a total of 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. Also explores the ethics regarding human remains, looting, and indigenous rights, as well as, state and federal legislation.
Transfer Credit: Transfers to CSU; UC. C-ID: ANTH 150
ANTHR 6  
Peoples and Cultures of Non-Western Tradition: California
3 units; 3 hours Lecture
Repeatability: May be taken a total of 1 time.
Surveys the origins and evolution of native Californian 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
Repeatability: May be taken a total of 1 time.
Presents an ethnohistorical and ethnographic survey of the diverse Native American societies and cultures north of Central Mexico. Also examines the history of Native and Non-Native contact with a focus on its effects on both Native American and Euro-American cultures through time.
Transfer Credit: Transfers to CSU; UC.

ANTHR 8  
Anthropology of Religion
3 units; 3 hours Lecture
Repeatability: May be taken a total of 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
Repeatability: May be taken a total of 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.

ANTHR 17  
Global Perspectives of Food and Culture
3 units; 3 hours Lecture
Repeatability: May be taken a total of 1 time.
Examines the social, cultural, and ecological aspects of food, food products, and food resources in a global, historical, and comparative perspective.
Transfer Credit: Transfers to CSU; UC.

ANTHR 19AZ  
Special Topics in Anthropology
1 – 3 units; 1 – 3 hours Lecture
Repeatability: May be taken a total of 1 time.
Explores selected topics in anthropology not covered by regular catalog offerings.
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.

ANTHR 26  
Archaeological Field School
5 units; 2 hours Lecture, 9 hours Laboratory
Prerequisite: ANTHR 3 or equivalent experience
Repeatability: May be taken a total of 1 time.
Provides students experiential based training in archaeological survey, excavation, and laboratory processing of excavated material. Includes recognition and recordation of historic and prehistoric sites, theory and methods of archaeological processes (stratigraphy, sampling, record keeping, note taking, profiles, mapping), and basic archaeological field laboratory techniques.
Transfer Credit: Transfers to CSU.

ANTHR 30  
Gender Across Cultures
3 units; 3 hours Lecture
Repeatability: May be taken a total of 1 time.
Examines gender diversity and gender roles found in various cultures around the globe using an anthropological perspective. Uses cross cultural comparisons to study and evaluate how economics, history, kinship, religion, politics, language, and other aspects of society and culture reinforce conceptualizations and lived experiences of gender as well as how gender norms influence these institutions. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC.
**ART HISTORY**

**Visual, Applied, and Performing Arts Division**

John Graulty, Division Dean  
Division Office, Room VAPA1007  
Heather Peterson, Art History Program Coordinator,  
(831) 477-3349  
Aptos Counseling: (831) 479-6274 for appointment  
Watsonville Counseling: (831) 786-4734  
Call (831) 479-6464 for more information  
http://www.cabrillo.edu/programs

**Art History A.A.-T Transfer Degree**

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

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

Cabrillo offers options for degrees in Art History. The first option listed below is the Associate in Arts in Art History for Transfer (A.A.-T), which is intended for students who plan to transfer and complete a bachelors 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, or a "P" if the course is taken on a "Pass/ No Pass" basis.
- Certified completion of the California State University General Education-Breadth pattern (CSU GE Breadth) or the Intersegmental General Education Transfer Curriculum (IGETC) pattern.

**Learning Outcomes**

The Cabrillo College Core Competencies (with an emphasis on the study of Art History):

1. Communication: Reading, Writing, Listening, Speaking and/or Conversing
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving

**CSU or IGETC for CSU General Education Requirements 37-39 Units**

**Core Courses (9 units)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AH 20A</td>
<td>Survey of Art from Prehistoric Through Medieval Periods</td>
<td>3</td>
</tr>
<tr>
<td>AH 20B</td>
<td>Survey of Art from the Renaissance to the Present</td>
<td>3</td>
</tr>
<tr>
<td>ART 2A</td>
<td>Drawing and Composition I</td>
<td>3</td>
</tr>
</tbody>
</table>

**List A - Select from the following: (3-6 units)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AH 16</td>
<td>Art of India and Southeast Asia</td>
<td>3</td>
</tr>
<tr>
<td>or AH 17</td>
<td>Art of China, Korea and Japan</td>
<td>3</td>
</tr>
<tr>
<td>or AH 19</td>
<td>Art of the Americas</td>
<td>3</td>
</tr>
<tr>
<td>or AH 52</td>
<td>Latin American Art</td>
<td>3</td>
</tr>
</tbody>
</table>

**List B - Select one course from the following: (3 units)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 2B</td>
<td>Drawing and Composition II</td>
<td>3</td>
</tr>
<tr>
<td>ART 3A</td>
<td>Life Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>ART 3B</td>
<td>Life Drawing II</td>
<td>3</td>
</tr>
<tr>
<td>ART 4</td>
<td>Beginning Design: Design and Color</td>
<td>3</td>
</tr>
<tr>
<td>ART 5</td>
<td>Beginning Design: 3 Dimensional Form</td>
<td>3</td>
</tr>
<tr>
<td>ART 7A</td>
<td>Ceramics–Hand Building</td>
<td>3</td>
</tr>
<tr>
<td>ART 7B</td>
<td>Ceramics–Wheel Forming</td>
<td>3</td>
</tr>
<tr>
<td>ART 34A</td>
<td>Sculpture: Direct Processes I</td>
<td>3</td>
</tr>
<tr>
<td>ART 34B</td>
<td>Sculpture: Direct Processes II</td>
<td>3</td>
</tr>
<tr>
<td>ART 37A</td>
<td>Watercolor I</td>
<td>3</td>
</tr>
<tr>
<td>ART 37B</td>
<td>Watercolor II</td>
<td>3</td>
</tr>
<tr>
<td>AP 9A</td>
<td>Beginning Photography</td>
<td>3</td>
</tr>
<tr>
<td>AP 9B</td>
<td>Intermediate Photography</td>
<td>3</td>
</tr>
<tr>
<td>DM 1</td>
<td>Introduction to Digital Media</td>
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</tbody>
</table>

Any beginning level Studio Art course

**List C - Select one course from the following: (3-5 units)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>Any course not used from List A or List B above</td>
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</tbody>
</table>

Any Art History course

Any Anthropology course in CSU GE Area D

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>AP 15</td>
<td>History of Photography</td>
<td>3</td>
</tr>
<tr>
<td>BBS 32</td>
<td>Issues of Linguistic and Cultural Diversity in Education, History and Politics</td>
<td>3</td>
</tr>
<tr>
<td>ECE 32</td>
<td>Child, Family and Community</td>
<td>3</td>
</tr>
</tbody>
</table>
Art History A.A. Degree

Learning Outcomes

The Cabrillo College Core Competencies (with an emphasis in the study of Art History):

1. Communication: Reading, Writing, Listening, Speaking and/or Conversing

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


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

Art History Core Courses (6-12 Units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AH 11</td>
<td>Ancient Art</td>
<td>3</td>
</tr>
<tr>
<td>AH 11H</td>
<td>Honors Ancient Art</td>
<td>3</td>
</tr>
<tr>
<td>AH 12</td>
<td>Middle Ages: Art/Mediterranean</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>and</td>
<td></td>
</tr>
<tr>
<td>AH 13</td>
<td>Renaissance to 19th Century</td>
<td>3</td>
</tr>
<tr>
<td>AH 13H</td>
<td>Honors Renaissance to 19th Century</td>
<td>3</td>
</tr>
<tr>
<td>AH 14</td>
<td>Modern Art</td>
<td>3</td>
</tr>
</tbody>
</table>

or

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AH 20A</td>
<td>Survey of Art from Prehistoric Through Medieval Periods</td>
<td>3</td>
</tr>
</tbody>
</table>

and

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AH 20B</td>
<td>Survey of Art from the Renaissance to the Present</td>
<td>3</td>
</tr>
</tbody>
</table>

Multicultural Art History Courses (6 Units)

<table>
<thead>
<tr>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td>AH 16</td>
<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>
<td>3</td>
</tr>
<tr>
<td>AH 18</td>
<td>Art in America to 1900</td>
<td>3</td>
</tr>
<tr>
<td>AH 19</td>
<td>Art of the Americas</td>
<td>3</td>
</tr>
<tr>
<td>AH 52</td>
<td>Latin American Art</td>
<td>3</td>
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</tbody>
</table>

Art History Electives (3-6 Units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>AH 10</td>
<td>Appreciation/Introduction to the Visual Arts</td>
<td>3</td>
</tr>
<tr>
<td>AH 53</td>
<td>Contemporary Art and Visual Culture</td>
<td>3</td>
</tr>
</tbody>
</table>

Studio Art Courses (6 Units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 2A</td>
<td>Drawing and Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ART 4</td>
<td>Beginning Design: Design and Color</td>
<td>3</td>
</tr>
<tr>
<td>ART 5</td>
<td>Beginning Design: 3-Dimensional Form</td>
<td>3</td>
</tr>
</tbody>
</table>

Recommended from Related Disciplines

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 79</td>
<td>Creative Careers - Discovering Self</td>
<td>3</td>
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<tr>
<td>and</td>
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</tr>
<tr>
<td>MUS 79</td>
<td>Creative Careers - Discovering Self</td>
<td>3</td>
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<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DM 79</td>
<td>Creative Careers - Discovering Self</td>
<td>3</td>
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</tbody>
</table>

Creative Careers - Discovering Self-Directed Pathways Skills Certificate

Learning Outcome

Research and analyze ways to create impact and develop a livelihood in all visual, applied, and performing arts disciplines by identifying your WHY and focusing on unique, self-directed, non-traditional, and entrepreneurial pathways.

Required

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AH 79</td>
<td>Creative Careers - Discovering Self Directed Pathways</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AP 79</td>
<td>Creative Careers - Discovering Self Directed Pathways</td>
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</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ART 79</td>
<td>Creative Careers - Discovering Self Directed Pathways</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DANCE 79</td>
<td>Creative Careers - Discovering Self Directed Pathways</td>
<td>3</td>
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<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DM 79</td>
<td>Creative Careers - Discovering Self Directed Pathways</td>
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</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MUS 79</td>
<td>Creative Careers - Discovering Self Directed Pathways</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TA 79</td>
<td>Creative Careers - Discovering Self Directed Pathways</td>
<td>3</td>
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<tr>
<td>and</td>
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<tr>
<td>BUS 88</td>
<td>*Starting and Operating a New Small Business</td>
<td>3</td>
</tr>
</tbody>
</table>

*Special VAPA only cohort offering, typically offered every spring term

Any AH/AP/ART/DANCE/DM/MUS/TA course 1-99 | 1-4

Total Units 7-10
Art History Courses

Transfer Credit in Art History
All Art History courses meet 3 units of transfer credit. There are no limits in transfer credit when students complete one course of art history. Limits apply after completing one course in Western art. AH 11, 12, 13, & 14 are courses in Western art for all students, and especially, for those who transfer to a UC campus. AH 20A & 20B are courses in Western art for all students, and especially, for those who transfer to a CSU campus. After completing one of these courses, students who enroll in a second course should follow the transfer credit information listed under the specific courses below.

AH 10  Appreciation/Introduction to the Visual Arts
3 units; 3 hours Lecture
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L. Repeatability: May be taken a total of 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
Repeatability: May be taken a total of 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.
Repeatability: May be taken a total of 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
Repeatability: May be taken a total of 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 19th Century
3 units; 3 hours Lecture
Repeatability: May be taken a total of 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 13/13H 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 13H  Honors Renaissance to 19th Century
3 units; 3 hours Lecture
Prerequisite: Honors standing.
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken a total of 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. May not be taken Pass/No Pass.
Transfer Credit: Transfers to CSU; UC, with limits: Students who enroll in AH 13/13H 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
Repeatability: May be taken a total of 1 time.
Studies the art of Europe and the United States from the mid-19th century to the present through historical analysis and related approaches to viewing art and images. May be offered in a Distance-Learning Format.
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
Repeatability: May be taken a total of 1 time.
Surveys the history of the visual arts of India and Southeast Asia, including Tibet and Nepal, from ancient to modern times. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC. AH 16 + AH 17 = C-ID: ARTH 130.

AH 17  Art of China, Korea and Japan
3 units; 3 hours Lecture
Repeatability: May be taken a total of 1 time.
Surveys the history of the visual arts of China, Korea and Japan from ancient to modern times. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC. AH 16 + AH 17 = C-ID: ARTH 130.

AH 18  Art in America to 1900
3 units; 3 hours Lecture
Repeatability: May be taken a total of 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
Repeatability: May be taken a total of 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
Repeatability: May be taken a total of 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
Repeatability: May be taken a total of 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 13/13H or 14. See Transfer Credit in Art History above, for more detailed information on transfer of Art History courses. C-ID: ARTH 120.

AH 52  Latin American Art
3 units; 3 hours Lecture
Repeatability: May be taken a total of 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. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC.

AH 53  Contemporary Art and Visual Culture
3 units; 3 hours Lecture
Repeatability: May be taken a total of 1 time.
Presents topics in contemporary art and introduces visual culture as a field of study. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC.

AH 79  Creative Careers -Discovering Self-Directed Pathways
3 units; 3 hours Lecture, 1 hour Laboratory
Repeatability: May be taken a total of 1 time.
Investigates creative career opportunities in all visual, applied, and performing arts disciplines, with a focus on unique, self-directed, non-traditional, and entrepreneurial pathways and the academic and life choices necessary to realize such opportunities. May be offered in a Distance-Learning Format. Materials fee may apply. AH 79, ART 79, AP 79, DANCE 79, DM 79, MUS 79, and TA 79 are cross listed courses. Students may enroll in only one course for credit.
Transfer Credit: Transfers to CSU.
ART PHOTOGRAPHY
Visual, Applied, and Performing Arts Division
John Graulty, Division Dean
Division Office, Room VAPA1007
Gordon Hammer, Department Chair, (831) 479-6188
Aptos Counseling: (831) 479-6274 for appointment
Watsonville Counseling: (831) 786-4734
Call (831) 479-6464 for more information
http://www.cabrillo.edu/programs

Art Photography A.A. Degree
The Art Photography program provides students with a strong foundation in the use of traditional and digital photographic technologies, the evolution of photographic and moving image art aesthetics and practice, composition and visual communication, and the ways in which images function in culture and society (Image Literacy). The course of study bridges traditional black-and-white photography, digital photography, video and moving image art, historical, alternative, and experimental photographic processes, lighting, history of photography, history of moving image art, and contemporary trends. Classes emphasize the technical, creative image making, critical analysis, and visual communication skills needed to prepare for transfer to four-year institutions or employment in the field. All Art Photography classes transfer to either the UC or CSU systems.

Learning Outcomes
The Cabrillo College Core Competencies (with an emphasis in the study of Art Photography):
1. Communication: Reading, Writing, Listening, Speaking and/or Conversing
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving

Model Program for Art Photography
The following Model Program fulfills requirements for the A.A. Degree in Art Photography 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.

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

#### Select 3 units from the following courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>AP 9B</td>
<td>Intermediate Photography........................3</td>
</tr>
<tr>
<td>AP 46B</td>
<td>Digital Photography II...........................3</td>
</tr>
<tr>
<td>AP 46C</td>
<td>Digital Photography III..........................3</td>
</tr>
</tbody>
</table>

### Digital Photography

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>AP 6</td>
<td>Introduction to Digital Photography........... 1-3</td>
</tr>
<tr>
<td>AP 46B</td>
<td>Digital Photography II...........................3</td>
</tr>
<tr>
<td>AP 46C</td>
<td>Digital Photography III..........................3</td>
</tr>
</tbody>
</table>

### Traditional B&W Photography

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>AP 9B</td>
<td>Intermediate Photography........................3</td>
</tr>
<tr>
<td>AP 9C</td>
<td>Advanced Photography.............................3</td>
</tr>
<tr>
<td>AP 28</td>
<td>Medium and Large Format Photography I...........3</td>
</tr>
<tr>
<td>AP 38</td>
<td>Medium and Large Format Photography II........3</td>
</tr>
</tbody>
</table>

### Historical, Alternative, and Experimental Photographic Processes

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AP 52</td>
<td>Alternative Photographic Processes II..........3</td>
</tr>
</tbody>
</table>

### Lighting and Studio Photography

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AP 57</td>
<td>Lighting for Photography II......................3</td>
</tr>
</tbody>
</table>

### Video and Moving Image Art

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AP 14</td>
<td>Introduction to Video Art........................1-3</td>
</tr>
</tbody>
</table>

### Image Literacy

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AP 3</td>
<td>The Art of Photography: An Overview........... 3</td>
</tr>
<tr>
<td>AP 25</td>
<td>Photography and Visual Communication..........3</td>
</tr>
<tr>
<td>AP 35</td>
<td>Photography, New Media and Social Change.....3</td>
</tr>
<tr>
<td>or</td>
<td>Honors Photography, New Media and Social Change..................................................3</td>
</tr>
<tr>
<td>AP 45</td>
<td>Contemporary Trends in Photography............3</td>
</tr>
<tr>
<td>AP 55</td>
<td>The Moving Image: Experimental Film, Video, and New Media Art.................................3</td>
</tr>
<tr>
<td>AP 185</td>
<td>**Survey of Latin American Photography........1-3</td>
</tr>
</tbody>
</table>

### Creative Careers

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AP 79</td>
<td>Creative Careers..................................3</td>
</tr>
</tbody>
</table>

### Approved Electives (3-4 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 2A</td>
<td>Drawing and Composition I......................3</td>
</tr>
<tr>
<td>ART 2B</td>
<td>Drawing and Composition II.....................3</td>
</tr>
<tr>
<td>ART 4</td>
<td>Beginning Design: Design and Color............3</td>
</tr>
<tr>
<td>ART 16</td>
<td>Graphic Design..................................3</td>
</tr>
<tr>
<td>DM 4</td>
<td>Digital Graphics................................3</td>
</tr>
<tr>
<td>DM 5</td>
<td>Design for Digital Media.......................4</td>
</tr>
</tbody>
</table>

### Digital Imaging

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>DM 1</td>
<td>Introduction to Digital Media..................4</td>
</tr>
<tr>
<td>DM 12</td>
<td>Photoshop Techniques I........................4</td>
</tr>
<tr>
<td>DM 13</td>
<td>Photoshop Techniques II.......................4</td>
</tr>
</tbody>
</table>

### Image Literacy

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AH 10</td>
<td>Appreciation/Introduction to the Visual Arts.....3</td>
</tr>
<tr>
<td>AH 20A</td>
<td>Survey of Art from Prehistoric.................3</td>
</tr>
<tr>
<td>AH 20B</td>
<td>Through Medieval Periods........................3</td>
</tr>
<tr>
<td>AH 53</td>
<td>Survey of Art from the Renaissance to the Present....3</td>
</tr>
<tr>
<td>ART 50L</td>
<td>Contemporary Art and Visual Culture...........3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AH 53</td>
<td>Contemporary Art and Visual Culture...........3</td>
</tr>
<tr>
<td>ART 50L</td>
<td>Gallery Viewing Lab............................1</td>
</tr>
</tbody>
</table>
ART 51L Museum Viewing Lab........................................1
Journalism
JOURN 21 Mass Communications..............................3
Portfolio Building
ART 90 Methods of Art Presentation............................1-3
Related Art Processes
ART 1A Introduction to Art Making Practices...............3
ART 33A Screen Printing/Seriography I........................3
ART 48 Two Dimensional Mixed Media........................1-3
ART 54 Introduction to Digital Art..............................1
Video and Moving Image Art
DM 34 Introduction to Video Production........................4
DM 35 Intermediate Video Production........................4
DM 72 Fundamentals of Animation............................4
ETECH 40 3D Animation..........................................3
Electives: (2-3 units) Units (Any Course Numbered 1-99)........2-3
Total Units 60
*If not taken as a core requirement
**This course is not transferable to four-year universities.
Creative Careers - Discovering Self-Directed Pathways Skills Certificate
Learning Outcome
Research and analyze ways to create impact and develop a livelihood in all visual, applied, and performing arts disciplines by identifying your WHY and focusing on unique, self-directed, non-traditional, and entrepreneurial pathways.
Required
AH 79 Creative Careers - Discovering
or AP 79 Creative Careers - Discovering
or ART 79 Creative Careers - Discovering
or DANCE 79 Creative Careers - Discovering
or DM 79 Creative Careers - Discovering
or MUS 79 Creative Careers - Discovering
or TA 79 Creative Careers - Discovering
and BUS 88 *Starting and Operating a New Small Business..........................3
*Special VAPA only cohort offering, typically offered every spring term
Any AH/AP/ART/DANCE/DM/MUS/TA course 1-99...............1-4
Total Units 7-10
Digital Photography Skills Certificate
Learning Outcomes
Produce photographic images and short video projects utilizing digital imaging technologies and basic lighting techniques.
Required Courses Units
AP 46A Digital Photography I......................................3
AP 46B Digital Photography II.....................................3
AP 47 Lighting for Photography I..................................3
Select 1-4 units from the following courses
AP 14 Introduction to Art Making Practices...............1-3
DM 34 Introduction to Video Production..........................4
Select 3 units from the following courses
AP 35 Photography, New Media and Social Change........3
or AP 35H Honors Photography, New Media and Social Change..................................................3
AP 45 Contemporary Trends in Photography................3
Total Units 13 - 16
Historical and Alternative Photographic Processes Skills Certificate
Learning Outcome
Produce photographic images utilizing historical, contemporary, and non-traditional applications of silver-based and non-silver photographic processes.
Required Courses Units
AP 9A Beginning Photography....................................3
AP 9B Intermediate Photography................................3
AP 15 History of Photography.....................................3
AP 42 Alternative Photographic Processes I................3
Select 1-3 units from the following courses
AP 28 Medium and Large Format Photography...............1-3
AP 52 Alternative Photographic Processes II................3
Total Units 13 - 15
Image Literacy: Photography & Moving Images Skills Certificate
Learning Outcome
Analyze photographic and moving image media in a social, historical, and technological context to build visual skills for careers that utilize image-based communication.
Required Courses Units
AP 15 History of Photography.....................................3
AP 55 The Moving Image: Experimental Film, Video, and New Media Art..........................3
Select 1-3 units from the following courses
AP 45 Contemporary Trends in Photography................3
AP 185 Survey of Latin American Photography.............1-3
Select 3 units from the following courses
AH 10 Appreciation/Introduction to the Visual Arts........3
AP 3 The Art of Photography: An Overview................3
AP 25 Photography and Visual Communication..............3
Select 3 units from the following courses
AH 53 Contemporary Art and Visual Culture................3
AP 35 Photography, New Media and Social Change........3
or AP 35H Honors Photography, New Media and Social Change..................................................3
JOURN 21 Mass Communications..............................3
Total Units 13 - 15
### Moving Image Arts Skills Certificate

**Learning Outcome**

Produce moving image art pieces utilizing digital imaging technologies for diverse forms of presentation.

**Required Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AP 14 Introduction to Video Art</td>
<td>1-3</td>
</tr>
<tr>
<td>DM 1 Introduction to Digital Media</td>
<td>4</td>
</tr>
<tr>
<td>DM 34 Introduction to Video Production</td>
<td>4</td>
</tr>
</tbody>
</table>

**Select 3 units from the following courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AP 55 The Moving Image: Experiential Film, Video and New Media Art</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 49A The Language of Film: Film History</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Units**

15 - 17

### Traditional Black and White Photography Skills Certificate

**Learning Outcomes**

Produce traditional darkroom based B&W photographic prints utilizing a variety of film-camera formats.

**Required Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>AP 9A Beginning Photography</td>
<td>3</td>
</tr>
<tr>
<td>AP 9B Intermediate Photography</td>
<td>3</td>
</tr>
<tr>
<td>AP 9C Advanced Photography</td>
<td>3</td>
</tr>
<tr>
<td>AP 28 Medium and Large Format Photography I</td>
<td>1-3</td>
</tr>
<tr>
<td>AP 38 Medium and Large Format Photography II</td>
<td>1-3</td>
</tr>
</tbody>
</table>

**Total Units**

11 - 15

### Art Photography Courses

**AP 3**

*The Art of Photography: An Overview*

3 units; 3 hours Lecture

Recommended Preparation: Completion of or concurrent enrollment in ART 50L.

Repeatability: May be taken a total of 1 time.

Surveys diverse methods for the creation of photographic imagery including historical, traditional B&W, alternative, experimental, and digital processes through lectures, demonstrations, guest presentations, and hands-on activities. Overviews photographic genres and introduces trends in historical and contemporary photographic image making. May be offered in a Distance-Learning Format. Materials fee may apply.

*Transfer Credit: Transfers to CSU; UC.*

**AP 6**

*Introduction to Digital Photography*

1 – 3 units; 0.67 – 2.01 hours Lecture, 1.33 – 3.99 hours Laboratory

Recommended Preparation: Completion of or concurrent enrollment in ART 50L.

Repeatability: May be taken a total of 1 time.

Introduces basic digital photography skills: camera operation and exposure controls; 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. Materials fee may apply.

*Transfer Credit: Transfers to CSU; UC.*
AP 14   Introduction to Video Art
1 – 3 units; 0.67 – 2.01 hours Lecture, 1.33 – 3.99 hours Laboratory
Recommended Preparation: Completion of or concurrent enrollment in AP 55 and ART 50L.
Repeatability: May be taken a total of 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. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC.

AP 15   History of Photography
3 units; 3 hours Lecture
Recommended Preparation: Completion of or concurrent enrollment in ART 50L.
Repeatability: May be taken a total of 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. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC.

AP 25   Photography and Visual Communication
3 units; 3 hours Lecture
Recommended Preparation: Completion of or concurrent enrollment in ART 50L.
Repeatability: May be taken a total of 1 time.
Provides an overview of visual principles for creating effective photographic images and methods for analyzing and interpreting photographic imagery. May be offered in a Distance-Learning Format. Materials fee may apply.
Transfer Credit: Transfers to CSU.

AP 28   Medium and Large Format Photography I
1 – 3 units; 0.67 – 2.01 hours Lecture, 1.33 – 3.99 hours Laboratory
Prerequisite: AP 9A or equivalent skills.
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.
Recommended Preparation: Completion of or concurrent enrollment in AP 9B and AP 46A or equivalent skills.
Repeatability: May be taken a total of 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 and 4X5 instant materials. Materials fee may apply.
Transfer Credit: Transfers to CSU.

AP 35   Photography, New Media and Social Change
3 units; 3 hours Lecture
Recommended Preparation: Completion of or concurrent enrollment in ART 50L.
Repeatability: May be taken a total of 1 time.
Examines the impact of new technologies and photography on culture, and analyzes the global social change achieved by current and historical movements in photography. Investigates how photography in new media influences current perceptions of race, gender, religion, sexual orientation, ethnicity and cultural identity. May be offered in a Distance-Learning Format. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC.

AP 35H   Honors Photography, New Media and Social Change
3 units; 3 hours Lecture
Prerequisite: Honors standing.
Recommended Preparation: Completion of or concurrent enrollment in ART 50L.
Repeatability: May be taken a total of 1 time.
Examines the impact of new technologies and photography on culture, and analyzes the global social change achieved by current and historical movements in photography. Investigates how photography in new media influences current perceptions of race, gender, religion, sexual orientation, ethnicity and cultural identity. Highlights student research, writing, and reporting, both individually and as part of a learning community, and may meet in an in-person or online group format. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC.
AP 38  Medium and Large Format Photography II
1 – 3 units; 0.67 – 2.01 hours Lecture, 1.33 – 3.99 hours Laboratory
Prerequisite: AP 28 or equivalent skills.
Hybrid Requisite: Completion of or concurrent enrollment in AP 9B or equivalent skills and ART 51L.
Recommended Preparation: AP 42 and AP 46A or equivalent skills.
Repeatability: May be taken a total of 1 time.
Refines medium and large format camera practice through in-depth photographic explorations, zone system techniques, fine-printing techniques, and thematic projects. Emphasizes hands-on practice, advanced view camera movements, conceptual development, portfolio building, presentation skills, and introduces digital imaging options.
Materials fee may apply.
Transfer Credit: Transfers to CSU.

AP 40AZ  Studies in Photography
1 – 3 units; 0.67 – 2.01 hours Lecture, 1.33 – 3.99 hours Laboratory
Repeatability: May be taken a total of 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. Materials fee may apply.
Transfer Credit: Transfers to CSU.

AP 42  Alternative Photographic Processes I
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: AP 46A and AP 9B or AP 28 or equivalent skills.
Repeatability: May be taken a total of 1 time.
Surveys creative photographic image making possibilities utilizing historical, contemporary, and non-traditional applications of silver-based and non-silver photographic processes. Includes mixed media combinations and digital imaging techniques. Materials fee may apply.
Transfer Credit: Transfers to CSU.

AP 45  Contemporary Trends in Photography
3 units; 3 hours Lecture
Recommended Preparation: Completion of or concurrent enrollment in ART 50L.
Repeatability: May be taken a total of 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. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC.

AP 46A  Digital Photography I
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.
Repeatability: May be taken a total of 1 time.
Teaches tools and techniques for creating photographic images with Adobe Photoshop including intermediate camera skills, image capture, import, manipulation, printing, and digital output. Introduces menus and tools, selection controls, retouching, global and selective image adjustments, and filter basics. Taught on Macintosh; adaptable to Windows. May be offered in a Distance-Learning Format. Materials fee may apply.
Transfer Credit: Transfers to CSU.

AP 46B  Digital Photography II
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: AP 46A or equivalent skills.
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.
Repeatability: May be taken a total of 1 time.
Continues digital photography studies from AP 46A with a focus on integrating content and design principles with software techniques for fine art and commercial applications. Introduces compositing, filters, and effects. Taught on Macintosh; Adaptable to Windows. Students may use either film or digital cameras. May be offered in a Distance-Learning Format. Materials fee may apply.
Transfer Credit: Transfers to CSU.

AP 46C  Digital Photography III
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: AP 46B or equivalent skills.
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.
Repeatability: May be taken a total of 1 time.
Continues the study of digital photography from AP 46B with a focus on expanding creative expression and refining technical skill. Taught on Macintosh; Adaptable to Windows. Students may use either film or digital cameras. May be offered in a Distance-Learning Format. Materials fee may apply.
Transfer Credit: Transfers to CSU.

AP 47  Lighting for Photography I
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.
Repeatability: May be taken a total of 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. Materials fee may apply.
Transfer Credit: Transfers to CSU.
AP 52 Alternative Photographic Processes II
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: AP 9B and AP 42 or equivalent skills.
Hybrid Requisite: Completion of or concurrent enrollment in ART 51L.
Recommended Preparation: AP 15 and AP 28 or AP 46A or equivalent skills.
Repeatability: May be taken a total of 1 time.
Teaches expressive image making through in-depth investigations of selected historical, contemporary, experimental, non-traditional, and lensless photographic processes. Emphasizes hands-on discovery, conceptual and technical refinements, portfolio building, and presentation skills. Materials fee may apply.
Transfer Credit: Transfers to CSU.

AP 55 The Moving Image: Experimental Film, Video, and New Media Art
3 units; 3 hours Lecture
Recommended Preparation: ART 50L.
Repeatability: May be taken a total of 1 time.
Surveys the evolution of the moving image in experimental film, video art, and new media art from the 19th century to current times. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC.

AP 57 Lighting for Photography II
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: AP 47 or equivalent skills.
Hybrid Requisite: Completion of or concurrent enrollment in ART 51L.
Recommended Preparation: AP 9B and AP 28 or equivalent skills.
Repeatability: May be taken a total of 1 time.
Covers expressive and interpretive lighting for both fine art and commercial photography utilizing digital cameras and/or medium and large format film cameras. Includes on-location lighting techniques, complex lighting situations, and use of multiple lighting sources. Materials fee may apply.
Transfer Credit: Transfers to CSU.

AP 79 Creative Careers-Discovering Self-Directed Pathways
3 units; 3 hours Lecture, 1 hour Laboratory
Repeatability: May be taken a total of 1 time.
Investigates creative career opportunities in all visual, applied, and performing arts disciplines, with a focus on unique, self-directed, non-traditional, and entrepreneurial pathways and the academic and life choices necessary to realize such opportunities. May be offered in a Distance-Learning Format. Materials fee may apply. AH 79, ART 79, AP 79, DANCE 79, DM 79, MUS 79, and TA 79 are cross listed courses. Students may enroll in only one course for credit.
Transfer Credit: Transfers to CSU.

AP 185 Survey of Latin American Photography
1 – 3 units; 1 – 3 hours Lecture
Recommended Preparation: Completion of or concurrent enrollment in ART 50L.
Repeatability: May be taken a total of 1 time.
Examines the history and aesthetics of Latin American photography from the 19th century to contemporary times in Mexico, Central and South America, and the Latin American diaspora in the world. Studies key historical, social, political, and aesthetic forces at work in Latin America photographic practices and surveys the major movements and styles in the history of Latin American photography including the family album and snapshot photography, art photography, photojournalism, and documentary photography. May be offered in a Distance-Learning Format. Materials fee may apply.
Transfer Credit: Non-transferable.
A.A.-T in Studio Arts for Transfer

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. Core curriculum includes drawing and composition, two-dimensional and three-dimensional design, and art history. After completing the core courses, students may advance to intermediate courses and complete their degree by concentrating their course work within the art studio options. Students may also investigate special interests in ART 40 A-Z classes, approved Art Photography classes and/or approved Digital Media classes.

Art gallery viewing is provided in the Cabrillo Art Gallery, which presents a range of exhibitions of original work by a variety of artists each academic year. These exhibitions are an integral part of the instructional program. Students participate in additional gallery observations through ART 50L, Gallery Viewing Lab. Museum viewing experience is facilitated through ART 51L, Museum Viewing Lab. Both courses are hybrid requisites in the Art Studio program.

The student with a transferable Associate in Arts Degree in Art Studio is prepared for upper division work in similar majors at many four-year institutions including UCs and CSUs, the San Francisco Art Institute, and California College of the Arts, as well as other colleges of art and schools of design.

Cabrillo offers options for degrees in Studio Art. The first option listed below is the Associate in Arts in Studio Arts for Transfer (A.A.-T in Studio Arts), which is intended for students who plan to transfer and complete a bachelor's degree in Studio Arts or a similar major at a CSU campus. Students completing the Associate in Arts in Studio Arts for Transfer (A.A.-T in Studio Arts) are guaranteed admission to the CSU system, but not to a particular campus or major. The Associate in Arts in Studio Arts for Transfer (A.A.-T in Studio Arts) 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, or a "P" if the course is taken on a "pass/no pass" basis. *Note: this degree requires greater than 18 units in the major for completion.
Art Studio A.A. Degree

Learning Outcomes

The Cabrillo College Core Competencies (with an emphasis in the study of Art Studio):

1. Communication: Reading, Writing, Listening, Speaking and/or Conversing
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving

Career Opportunities in Art

Career opportunities in the major include the following: exhibiting artist, art educator, graphic designer, illustrator, animator, game designer, 3-D digital designer, creative director, product designer, as well as positions within galleries, museums, and other arts organizations. Creative problem-solving skill, aesthetic expertise, critical thinking, and innovation are valued in many areas of commerce, industry, and in the non-profit sector.

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

Core Courses (12 units)

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

Art History Core Courses (6 units)

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

Art History Option 1

AH 20A Survey of Art from Prehistoric Through Medieval Periods .................................3

Art History Option 2

AH 11 Ancient Art .........................................................3
AH 11H Honors Ancient Art .................................................3
AH 12 Middle Ages: Art/Mediterranean World & Europe (A.D. 300-1400) ......................3
AH 13 Renaissance to 19th Century ........................................3
AH 13H Honors Renaissance to 19th Century .........................3
AH 14 Modern Art ..........................................................3
### Printmaking Option

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 32A</td>
<td>Printmaking: Etching and Intaglio</td>
<td>3</td>
</tr>
<tr>
<td>ART 32B</td>
<td>Intermediate Intaglio Prints</td>
<td>3</td>
</tr>
<tr>
<td>ART 33A</td>
<td>Screen Printing/Serigraphy I</td>
<td>3</td>
</tr>
<tr>
<td>ART 33B</td>
<td>Screen Printing/Serigraphy II</td>
<td>3</td>
</tr>
<tr>
<td>ART 39A</td>
<td>Woodblock and Relief Printmaking</td>
<td>3</td>
</tr>
<tr>
<td>ART 46</td>
<td>Book Arts</td>
<td>1-3</td>
</tr>
<tr>
<td>ART 74</td>
<td>Monoprint and Monotype Printmaking</td>
<td>1-3</td>
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### Sculpture Option

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ART 34A</td>
<td>Sculpture: Direct Processes I</td>
<td>3</td>
</tr>
<tr>
<td>ART 34B</td>
<td>Sculpture: Direct Processes II</td>
<td>3</td>
</tr>
<tr>
<td>ART 35</td>
<td>Sculpture: Casting</td>
<td>1-3</td>
</tr>
<tr>
<td>ART 36</td>
<td>Sculpture: Moldmaking</td>
<td>1-3</td>
</tr>
<tr>
<td>ART 44A</td>
<td>Figure Sculpture</td>
<td>1-3</td>
</tr>
<tr>
<td>ART 84</td>
<td>Found Object Sculpture</td>
<td>1-3</td>
</tr>
<tr>
<td>ART 95A</td>
<td>Survey of Digital Fabrication for Studio Arts</td>
<td>1-3</td>
</tr>
<tr>
<td>ART 95B</td>
<td>Beginning Digital Fabrication for Studio Arts</td>
<td>1-3</td>
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</table>

### Woodworking Option

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ART 25A</td>
<td>Beginning Woodworking/Furniture</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Design</td>
<td>1-3</td>
</tr>
<tr>
<td>ART 25B</td>
<td>Intermediate Woodworking/Furniture</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Design</td>
<td>1-3</td>
</tr>
<tr>
<td>ART 55A</td>
<td>Examining the Chair</td>
<td>1-3</td>
</tr>
<tr>
<td>ART 65A</td>
<td>Illumination: Lighting Fabrication</td>
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<tr>
<td></td>
<td></td>
<td>1-3</td>
</tr>
</tbody>
</table>

### Electives:

**(Any Course Numbered 1-99)**

- **Units** 3

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### Skills Certificate in Digital Fabrication and Making

This cross-disciplinary skills certificate will introduce students to the innovative and adaptive skills needed in the new world of work. These courses have been selected to give students a well-rounded skill set required to bring an idea to fruition through design thinking, 2D & 3D problem solving, digital and hands-on fabrication, and knowledge of basic making software and hardware.

**Learning Outcome**

1. Produce a portfolio of objects that showcase competency with design thinking, entrepreneurship, digital fabrication technologies, and traditional hands-on making techniques.

**Required Courses**

- ART 5  Beginning Design: 3-Dimensional Form ...........3
- ART 95A Survey of Digital Fabrication for Studio Arts ...1-3
- ENGR 3 How Things Work ........................................3

**Add one of the following courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 15</td>
<td>Cloud Programming with Python</td>
<td>4</td>
</tr>
<tr>
<td>CIS 71</td>
<td>Information &amp; Communication Technology Essentials</td>
<td>4</td>
</tr>
<tr>
<td>DM 4</td>
<td>Digital Graphics</td>
<td>4</td>
</tr>
</tbody>
</table>

**Total Units** 11-13

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### Creative Careers - Discovering Self-Directed Pathways Skills Certificate

**Learning Outcome**

Research and analyze ways to create impact and develop a livelihood in all visual, applied, and performing arts disciplines by identifying your WHY and focusing on unique, self-directed, non-traditional, and entrepreneurial pathways.

**Required**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AH 79</td>
<td>Creative Careers - Discovering Self Directed Pathways</td>
<td>3</td>
</tr>
<tr>
<td>or AP 79</td>
<td>Creative Careers - Discovering Self Directed Pathways</td>
<td>3</td>
</tr>
<tr>
<td>or ART 79</td>
<td>Creative Careers - Discovering Self Directed Pathways</td>
<td>3</td>
</tr>
<tr>
<td>or DANCE 79</td>
<td>Creative Careers - Discovering Self Directed Pathways</td>
<td>3</td>
</tr>
<tr>
<td>or DM 79</td>
<td>Creative Careers - Discovering Self Directed Pathways</td>
<td>3</td>
</tr>
<tr>
<td>or MUS 79</td>
<td>Creative Careers - Discovering Self Directed Pathways</td>
<td>3</td>
</tr>
<tr>
<td>or TA 79</td>
<td>Creative Careers - Discovering Self Directed Pathways</td>
<td>3</td>
</tr>
</tbody>
</table>

**and**

**BUS 88**  *Starting and Operating a New Small Business 3

*Special VAPA only cohort offering, typically offered every spring term

Any AH/AP/ART/DANCE/DM/MUS/TA course  1-99 .................. 1-4

**Total Units** 7-10
Art Studio

Art Studio Courses

ART 1A  Introduction to Art-making Practices
3 units; 3 hours Lecture
Repeatable: May be taken a total of 1 time.
Introduces traditional and contemporary art forms and practices in a variety of cultural and social contexts. Explores the relationship between methods, materials, and content from the perspective of art making. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC.

ART 2A  Drawing and Composition I
3 units; 2 hours Lecture, 4 hours Laboratory
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.
Repeatable: May be taken a total of 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. C-ID: ARTS 110

ART 2B  Drawing and Composition II
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ART 2A.
Hybrid Requisite: Completion of or concurrent enrollment in ART 51L.
Repeatable: May be taken a total of 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. C-ID: ARTS 205

ART 3A  Life Drawing I
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ART 2A.
Hybrid Requisite: Completion of or concurrent enrollment in ART 51L.
Repeatable: May be taken a total of 1 time.
Teaches the fundamentals of drawing the human figure. Emphasizes observational studies from the live model and personal interpretation of the human form. Materials fee may apply. This course is not appropriate for minors.
Transfer Credit: Transfers to CSU; UC. C-ID: ARTS 200

ART 3B  Life Drawing II
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ART 3A.
Hybrid Requisite: Completion of or concurrent enrollment in ART 51L.
Repeatable: May be taken a total of 1 time. Continues development of fundamental skills of the representation of the human figure. Drawing from life. Emphasizes composition and content. This course is not appropriate for minors. 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.
Repeatable: May be taken a total of 1 time.
Introduces the concepts, applications, and historical references related to two-dimensional art and composition, including the study of the principles of composition and elements of art: 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. C-ID: ARTS 100

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.
Repeatable: May be taken a total of 1 time.
Teaches design elements and principles used in 3-dimensional artwork and sculpture. Includes projects in various media: plaster, paper, wood, and metal. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC. C-ID: ARTS 101

ART 7A  Ceramics—Hand Building
3 units; 2 hours Lecture, 4 hours Laboratory
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.
Repeatable: May be taken a total of 1 time.
Provides beginning level instruction in clay processes covering hand-building 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 51L.
Recommended Preparation: ART 5.
Repeatable: May be taken a total of 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 7C  **Advanced Wheel-Forming, Ceramic Surfaces and Kiln-Firing**
1 – 3 units; 0.67 – 2 hours Lecture, 1.33 – 4 hours Laboratory
Prerequisite: ART 7B or equivalent skills (portfolio review).
Repeatability: May be taken a total of 1 time.
Continues the study of clay processes covering wheel throwing methods, ceramic surfaces, and kiln-firing procedure and practice. Materials fees may apply. *Transfer Credit: Transfers to CSU; UC.*

ART 8A  **Small Scale Metal/Jewelry**
3 units; 2 hours Lecture, 4 hours Laboratory
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.
Recommended Preparation: ART 4 or ART 5.
Repeatability: May be taken a total of 1 time.
Teaches basic metal arts and jewelry making 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**
1 – 3 units; 0.67 – 2 hours Lecture, 1.33 – 4 hours Laboratory
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.
Recommended Preparation: ART 5.
Repeatability: May be taken a total of 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 8A.
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.
Recommended Preparation: ART 5.
Repeatability: May be taken a total of 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.
Repeatability: May be taken a total of 1 time.
Presents increased complexity in non ferrous small scale metals casting technologies. Materials fee may apply. *Transfer Credit: Transfers to CSU.*

ART 13A  **Beginning Small Scale Enameling**
1 – 3 units; 0.67 – 2 hours Lecture, 1.33 – 4 hours Laboratory
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.
Repeatability: May be taken a total of 1 time.
Introduces art enameling processes on small scale metals and explores granular and liquid enamels and related technologies. Materials fee may apply. *Transfer Credit: Transfers to CSU.*

ART 13B  **Intermediate Small Scale Enameling**
1 – 3 units; 0.67 – 2 hours Lecture, 1.33 – 4 hours Laboratory
Prerequisite: ART 13A.
Hybrid Requisite: ART 51L.
Repeatability: May be taken a total of 1 time.
Teaches intermediate level small scale enameling processes on 3D and 2D metal formats with granular and liquid enamel applications. Materials fees may apply. *Transfer Credit: Transfers to CSU.*

ART 17A  **Intermediate Handbuilding - Ceramics**
1 – 3 units; 0.67 – 2 hours Lecture, 1.33 – 4 hours Laboratory
Hybrid Requisite: Completion of or concurrent enrollment in ART 51L.
Recommended Preparation: ART 7A.
Repeatability: May be taken a total of 1 time.
Builds on concepts, processes and practices learned in ART 7A, with an emphasis on using a combination of handbuilding techniques toward innovative design and fabrication for ceramic art work. Materials fee may apply. *Transfer Credit: Transfers to CSU.*

ART 21  **Textile Surface Design**
1 – 3 units; 0.67 – 2 hours Lecture, 1.33 – 4 hours Laboratory
Repeatability: May be taken a total of 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 24A  **Fiber Arts: Textile, Fiber, Paper**
1 – 3 units; 0.67 – 2 hours Lecture, 1.33 – 4 hours Laboratory
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.
Repeatability: May be taken a total of 1 time.
Presents general topics in the fiber arts area such as paper making, fabric dyeing, bookbinding, and related fiber arts. Emphasizes individual design. Explores contemporary and historical fiber arts, their design and processes. Materials fees may apply. *Transfer Credit: Transfers to CSU.*
ART 25A  Beginning Woodworking/Furniture Design
1 – 3 units; 0.67 – 2 hours Lecture, 1.33 – 4 hours Laboratory
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.
Recommended Preparation: ART 2A and ART 5.
Repeatability: May be taken a total of 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
1 – 3 units; 0.67 – 2 hours Lecture, 1.33 – 4 hours Laboratory
Prerequisite: ART 25A.
Hybrid Requisite: Completion of or concurrent enrollment in ART 51L.
Repeatability: May be taken a total of 1 time.
Continues the study of concepts and techniques 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
1 – 3 units; 0.67 – 2 hours Lecture, 1.33 – 4 hours Laboratory
Prerequisite: ART 25A.
Hybrid Requisite: Completion of or concurrent enrollment in ART 51L.
Repeatability: May be taken a total of 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 ART 25A and ART 25B. Materials fee may apply.
Transfer Credit: Transfers to CSU.

ART 26A  Fabrication I: Small Metal/Jewelry
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ART 8A.
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.
Repeatability: May be taken a total of 1 time.
Presents small scale metals/jewelry fabrication techniques, mechanisms construction, surface design, and non traditional engineered settings. Materials fee may apply.
Transfer Credit: Transfers to CSU.

ART 26B  Fabrication II: Small Scale Metal/Jewelry
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ART 26A.
Hybrid Requisite: Completion of or concurrent enrollment in ART 51L.
Repeatability: May be taken a total of 1 time.
Presents non ferrous metal decorative and structural fabrication through heat fusion technologies, ancient and contemporary. 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.
Repeatability: May be taken a total of 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 fees 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.
Repeatability: May be taken a total of 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 29  Textile Surface Design and Structures
1 – 3 units; 0.67 – 2 hours Lecture, 1.33 – 4 hours Laboratory
Hybrid Requisite: Completion of or concurrent enrollment in ART 51L.
Recommended Preparation: ART 21.
Repeatability: May be taken a total of 1 time.
Transfer Credit: Transfers to CSU; UC.
ART 31A Painting I
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ART 4.
Hybrid Requisite: Completion of or concurrent enrollment in ART 51L.
Recommended Preparation: ART 2A.
Repeatability: May be taken a total of 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 skills.
Hybrid Requisite: Completion or concurrent enrollment in ART 51L.
Repeatability: May be taken a total of 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.
Repeatability: May be taken a total of 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.

ART 32A 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.
Repeatability: May be taken a total of 1 time.
Teaches intaglio printmaking techniques in etching, drypoint, and monoprint. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC.

ART 32B Intermediate Intaglio Prints
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ART 32A.
Hybrid Requisite: Completion of or concurrent enrollment in ART 51L.
Repeatability: May be taken a total of 1 time.
Expands the use of intaglio printmaking techniques taught in ART 32 for the creation of original fine art prints. 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.
Repeatability: May be taken a total of 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.

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.
Repeatability: May be taken a total of 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.

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.
Repeatability: May be taken a total of 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.
Repeatability: May be taken a total of 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.
Repeatability: May be taken a total of 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.

ART 35  Sculpture: Casting
1 – 3 units; 0.67 – 2 hours Lecture, 1.33 – 4 hours Laboratory
Prerequisite: ART 34A.
Hybrid Requisite: Completion of or concurrent enrollment in ART 51L.
Repeatability: May be taken a total of 1 time.
Teaches 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; UC.

ART 36  Sculpture: Moldmaking
1 – 3 units; 0.67 – 2 hours Lecture, 1.33 – 4 hours Laboratory
Prerequisite: ART 5.
Hybrid Requisite: Completion of or concurrent enrollment in ART 51L.
Repeatability: May be taken a total of 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
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.
Repeatability: May be taken a total of 1 time.
Provides painting techniques with both transparent and opaque watercolor media. Includes studio projects, outdoor painting, and abstract or 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.
Repeatability: May be taken a total of 1 time.
Continues content from ART 37A with emphasis 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 8A.
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.
Recommended Preparation: ART 4 and ART 5.
Repeatability: May be taken a total of 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; This course transfers to UC if taken before F02.

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.
Repeatability: May be taken a total of 1 time.
Continues development of non ferrous small scale metal and jewelry art forming technologies. Materials fee may apply.
Transfer Credit: Transfers to CSU.

ART 39A  Woodblock and Relief Printmaking
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ART 4.
Hybrid Requisite: Completion of or concurrent enrollment in ART 51L.
Repeatability: May be taken a total of 1 time.
Introduces wood and linoleum cutting techniques in relief printmaking. Materials fee may apply.
Transfer Credit: Transfers to CSU.

ART 40AZ  Studies in Studio Art
1 – 3 units; 0.67 – 2 hours Lecture, 1.33 – 4 hours Laboratory
Repeatability: May be taken a total of 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. Materials fee may apply.
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 41A  Figure Painting
1 – 3 units; 0.67 – 2 hours Lecture, 1.33 – 4 hours Laboratory
Prerequisite: ART 3A or ART 31A.
Hybrid Requisite: Completion of or concurrent enrollment in ART 51L.
Repeatability: May be taken a total of 1 time.
Provides observational study from the model, both nude and clothed, including use of source materials to develop figure-based paintings. Historical and contemporary currents in figurative art will be presented. Opaque painting media will be used. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC.
ART 44A  **Figure Sculpture**
1 – 3 units; 0.67 – 2 hours Lecture, 1.33 – 4 hours Laboratory
Prerequisite: ART 5.
Hybrid Requisite: Completion of or concurrent enrollment in ART 51L.
Repeatability: May be taken a total of 1 time.
Studies and explores the basic principles, materials and techniques of sculpting the human figure from live models. Emphasizes structure, proportion, balance, and self-expression in three-dimensional form. Develops awareness of historical and contemporary concerns in figure sculpture. Materials explored are clay, wire, and mixed media. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC.

ART 46  **Book Arts**
1 – 3 units; 0.67 – 2 hours Lecture, 1.33 – 4 hours Laboratory
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.
Recommended Preparation: ART 4.
Repeatability: May be taken a total of 1 time.
Teaches a variety of construction techniques to create handbound books, 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 48  **Two-Dimensional Mixed Media**
1 – 3 units; 0.67 – 2 hours Lecture, 1.33 – 4 hours Laboratory
Hybrid Requisite: Completion of or concurrent enrollment in ART 51L.
Recommended Preparation: ART 4.
Repeatability: May be taken a total of 1 time.
Explores two-dimensional, mixed media approaches to art and introduces students to a variety of materials, and design challenges. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC.

ART 49  **Alternative Drawing Process**
1 – 3 units; 0.67 – 2 hours Lecture, 1.33 – 4 hours Laboratory
Prerequisite: ART 2A.
Hybrid Requisite: Completion of or concurrent enrollment in ART 51L.
Repeatability: May be taken a total of 1 time.
Focuses on development of a personal visual language that will expand upon traditional drawing techniques, materials and concepts. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC.

ART 50L  **Gallery Viewing Lab**
0.5 unit; 1 hour Laboratory
Repeatability: May be taken a total of 1 time.
Encourages students to develop skills in gallery art viewing and critical analysis, supplemented by video viewing, guest lectures, and Internet searches. Materials fee may apply.
Transfer Credit: Transfers to CSU.

ART 51L  **Museum Viewing Lab**
0.5 unit; 1 hour Laboratory
Repeatability: May be taken a total of 1 time.
Encourages students to develop skills in museum art viewing and critical analysis supplemented by docent-led tours and/or reading of exhibition material. Materials fee may apply.
Transfer Credit: Transfers to CSU.

ART 54  **Introduction to Digital Art**
3 units, 2 hours lecture, 4 hours laboratory
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.
Repeatability: May be taken a total of 1 time.
Introduces fundamental concepts, practices, and theories of digital art production. Topics include integration of traditional design, color, and compositional principles with contemporary digital tools.
Transfer Credit: Transfers to CSU; UC.

ART 55A  **Examining the Chair**
1 – 3 units; 0.67 – 2 hours Lecture, 1.33 – 4 hours Laboratory
Prerequisite: ART 2A and ART 25A.
Hybrid Requisite: Completion of or concurrent enrollment in ART 51L.
Repeatability: May be taken a total of 1 time.
Explores the conceptual, functional, and aesthetic components of chair design and fabrication and builds upon woodworking techniques learned in ART 25A. Materials fees may apply.
Transfer Credit: Transfers to CSU.

ART 65A  **Illumination: Lighting Fabrication**
1 – 3 units; 0.67 – 2 hours Lecture, 1.33 – 4 hours Laboratory
Prerequisite: ART 2A and ART 5.
Hybrid Requisite: Completion of or concurrent enrollment in ART 51L.
Repeatability: May be taken a total of 1 time.
Explores the conceptual, functional, and aesthetic components of lighting design and fabrication. Includes an overview of historical and contemporary lighting solutions. Non-traditional materials will be encouraged, and each student will keep a sketchbook journal which will serve as a source for the development of ideas and potential solutions. Materials fee may apply.
Transfer Credit: Transfers to CSU.

ART 72A  **Ceramics Process I**
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ART 7B.
Hybrid Requisite: Completion of or concurrent enrollment in ART 51L.
Repeatability: May be taken a total of 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 72B  
**Ceramics Process II**
3 units; 2 hours Lecture, 4 hours Laboratory  
Prerequisite: ART 72A.  
Hybrid Requisite: Completion of or concurrent enrollment in ART 51L.  
Repeatability: May be taken a total of 1 time.  
Continues the exploration of methods and materials in ceramics as they pertain to individualized concepts, design, and presentation including specialized projects and group collaborations. Critical analysis of historical and contemporary ceramics as it relates to course work also required. Materials fee may apply.  
*Transfer Credit:* Transfers to CSU; UC.

ART 74  
**Monoprint and Monotype Printmaking**
1 – 3 units; 0.67 – 2 hours Lecture, 1.33 – 4 hours Laboratory  
Prerequisite: ART 32A.  
Hybrid Requisite: Completion of or concurrent enrollment in ART 51L.  
Repeatability: May be taken a total of 1 time.  
Introduces monoprints and monotypes based on the intaglio process. Materials fee may apply.  
*Transfer Credit:* Transfers to CSU.

ART 75  
**Surface Decoration in Ceramics**
1 – 3 units; 0.67 – 2 hours Lecture, 1.33 – 4 hours Laboratory  
Prerequisite: ART 7A.  
Hybrid Requisite: Completion or concurrent enrollment in ART 51L.  
Repeatability: May be taken a total of 1 time.  
Covers a range of materials and techniques in ceramic surface decoration such as underglaze painting and printing on clay. Students will develop ceramic forms for the specific purpose of exploring surface treatments prevalent in modern ceramics. Materials fee may apply.  
*Transfer Credit:* Transfers to CSU; UC.

ART 79  
**Creative Careers-Discovering Self-Directed Pathways**
3 units; 3 hours Lecture, 1 hour Laboratory  
Repeatability: May be taken a total of 1 time.  
Investigates creative career opportunities in all visual, applied, and performing arts disciplines, with a focus on unique, self-directed, non-traditional, and entrepreneurial pathways and the academic and life choices necessary to realize such opportunities. May be offered in a Distance-Learning Format. Materials fee may apply. AH 79, ART 79, AP 79, DANCE 79, DM 79, MUS 79, and TA 79 are cross listed courses. Students may enroll in only one course for credit.  
*Transfer Credit:* Transfers to CSU.

ART 82  
**Perspective Drawing**
1 – 3 units; 0.67 – 2 hours Lecture, 1.33 – 4 hours Laboratory  
Hybrid Requisite: Completion or concurrent enrollment in ART 50L.  
Recommended Preparation: ART 2A.  
Repeatability: May be taken a total of 1 time.  
Introduces drawing techniques in linear and atmospheric perspective, and includes instruction of observational drawing techniques that develop the illusion of space within the picture plane. Concentrates on the study and practice of systematic perspective drawing, and potential for pictorial manipulation and personal expression. Materials fee may apply.  
*Transfer Credit:* Transfers to CSU; UC.

ART 84  
**Found Object Sculpture**
1 – 3 units; 0.67 – 2 hours Lecture, 1.33 – 4 hours Laboratory  
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.  
Recommended Preparation: ART 5.  
Repeatability: May be taken a total of 1 time.  
Investigates ideas through the mixing of found objects with other media to create three dimensional artworks. Explores innovative approaches to working with found materials to convey personal content. Materials fee may apply.  
*Transfer Credit:* Transfers to CSU.

ART 90  
**Methods of Art Presentation**
1 – 3 units; 0.67 – 2 hours Lecture, 1.33 – 4 hours Laboratory  
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.  
Repeatability: May be taken a total of 1 time.  
Introduces methods of presenting artwork for students with a developed body of work including portfolio preparation and display, writing resumes, artist statements and autobiographies, photographing artwork, and performing individual research. May be offered in a Distance-Learning Format. Materials fee may apply.  
*Transfer Credit:* Transfers to CSU.

ART 91  
**Public Art - Painting & Mural**
1 – 3 units; 0.67 – 2 hours Lecture, 1.33 – 4 hours Laboratory  
Recommended Preparation: ART 2A and/or ART 4.  
Hybrid Requisite: Completion or concurrent enrollment in ART 50L.  
Repeatability: May be taken a total of 1 time.  
Focusses on skill development using a variety of painting materials and techniques for individual portfolios and collaborative large-scale public art works, including murals. Course includes: a review of color and design principles, artist/client interaction, planning, site review and installation, and an overview of contemporary issues in painting and site-specific art. Materials fee may apply.  
*Transfer Credit:* Transfers to CSU; UC.
ART 92  Public Art - Ceramic Tile and Mosaic
1 – 3 units; 0.67 – 2 hours Lecture, 1.33 – 4 hours Laboratory
Hybrid Requisite: Completion of or concurrent enrollment in ART 51L
Repeatability: May be taken a total of 1 time.
Explores ceramic tile and mosaic mural fabrication and construction for individual works and collaborative public projects. The medium is explored through all stages of the process including: artist/client interaction, planning, experimentation, technical application, proper and safe studio practices and firing, use of equipment, mounting, installation, and historic and contemporary context. Materials fee may apply. Transfer Credit: Transfers to CSU.

ART 95A  Survey of Digital Fabrication for Studio Arts
1 – 3 units; 0.67 – 2 hours Lecture, 1.33 – 4 hours Laboratory
Hybrid Requisite: Completion of or concurrent enrollment in ART 51L
Recommended Preparation: ART 5.
Repeatability: May be taken a total of 1 time.
Surveys creative applications of computer-aided fabrication technologies for studio arts including 3D printing hardware and software, and other related fabrication technologies. Materials fee may apply. Transfer Credit: Transfers to CSU.

ART 95B  Beginning Digital Fabrication for Studio Arts
1 – 3 units; 0.67 – 2 hours Lecture, 1.33 – 4 hours Laboratory
Prerequisite: ART 95A.
Repeatability: May be taken a total of 1 time.
Investigates methods for fabricating objects utilizing open-source models to create objects with computer-aided fabrication technologies. Introduces basic 3D modeling software as a tool for creative art making. Materials fee may apply. Transfer Credit: Transfers to CSU.

ART 196A  Beginning 3D Modeling for Digital Fabrication in Art
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ART 95B.
Hybrid Requisite: Completion of or concurrent enrollment in ART 51L
Repeatability: May be taken a total of 1 time.
Teaches techniques and processes to create 3D computer models for art fabrication. Includes exercises assignments and projects designed to build skill levels with 3D computer modeling tools and software. Materials fee may apply. Transfer Credit: Non-transferable.

ART 196B  Intermediate 3D Modeling for Digital Fabrication in Art
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ART 196A.
Hybrid Requisite: Completion of or concurrent enrollment in ART 51L
Repeatability: May be taken a total of 1 time.
Continues 3D modeling and fabrication studies from ART 196A with a focus on specialized tools for intricate model making, combining 3D modeling practice with traditional art making, and individual project development. Material fee may apply. Transfer Credit: Non-transferable.

ASTRONOMY

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

Astronomy A.S. Degree

Modern astronomy is an interdisciplinary field applying knowledge of physics, mathematics, planetary sciences, atmospheric sciences, and computational numerical methods to the study of planetary systems, stars, galaxies, and the universe as a whole. A B.S. Degree qualifies one to work as a scientific computer programmer, direct a planetarium, enter a teacher credential program, work at support position 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 for a university professorship, and 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. Astronomers are also in high demand in investment finance modeling, because of their skills in analyzing heterogeneous systems characterized by incomplete data.

University level astronomy curricula generally stress very strong initial preparation in mathematics and physics, and increasingly in computational numerical methods, atmospheric/climate science, planetary sciences, and chemistry. The most rapidly expanding area of astronomy today is planetary and atmospheric sciences, driven by the discoveries of planets around other stars and the urgent need to better understand planetary atmospheres, including our own. Many recommend that those planning on an advanced degree obtain their B.S. in physics or mathematics, but successful astronomers also emerge from atmospheric sciences majors and physics-related sciences. While most astronomy courses are taken at the upper division or graduate level, lower division astronomy will prepare students for choosing which area of astronomy interests them, and helps prepare them for a wide variety of science careers with the unique skills that astronomers must bring to the study of systems which include differing physics and data often 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.

Students may double count one ASTRO course and one MATH course from the Core courses to fulfill Cabrillo general education, CSU GE Breadth, or IGETC. Note that Astro 25 however only transfers as a CSU science elective. If your goal is to do astronomy as a career, astronomers tend to be focused in either planetary science - which is rapidly expanding thanks to new space missions and technology – or into stellar, cosmology, and galactic astronomy. It's unusual to find astronomers doing extensive work in both. There is some important overlap,
for example in the importance of star formation (covered in Astro 4) for understanding planet formation and planetary chemical make-up. The appropriate lower division course choices will differ slightly, as reflected below.

**Learning Outcomes**

The Cabrillo College Core Competencies (with an emphasis in the study of Astronomy):

1. Communication: Reading, Writing, Listening, Speaking and/or Conversing
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving

**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 - 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. This degree may be completed as a transferable Associate in Science degree with the addition of university admission requirements and increased general education requirements.

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

Students may choose between a focus on planetary science or on stellar, galactic, and cosmology.

**Planetary Science Focus: Core Courses (37 Units)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTRO 3</td>
<td><strong>Solar System Astronomy</strong></td>
<td>3</td>
</tr>
<tr>
<td>ASTRO 7</td>
<td>Planetary Climate Science</td>
<td>3</td>
</tr>
<tr>
<td>ASTRO 8A</td>
<td>Observatory Astronomy</td>
<td>1</td>
</tr>
<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>PHYS 4A</td>
<td>Physics for Scientists and Engineers I</td>
<td>5</td>
</tr>
<tr>
<td>PHYS 4B</td>
<td>Physics for Scientists and Engineers II</td>
<td>5</td>
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<tr>
<td>PHYS 4C</td>
<td>*Physics for Scientists and Engineers III</td>
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</table>

**Approved Electives (2 units)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTRO 9A</td>
<td><strong>Astrophotography</strong></td>
<td>1.5</td>
</tr>
<tr>
<td>ASTRO 25</td>
<td>Field Astronomy in the California Mountains</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 1A</td>
<td>General Chemistry I</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 1B</td>
<td>General Chemistry II</td>
<td>5</td>
</tr>
<tr>
<td>CIS 90</td>
<td>Introduction to UNIX/Linux</td>
<td>3</td>
</tr>
<tr>
<td>CS 19</td>
<td>C++ Programming</td>
<td>4</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>
</tr>
<tr>
<td>or</td>
<td>Honors Elementary Statistics</td>
<td>5</td>
</tr>
</tbody>
</table>

**Total Units** 60

*spring only; **fall only

**Astronomy Courses**

**ASTRO 3** 3 units; 3 hours Lecture

Recommended Preparation: MATH 154.

Repeatability: May be taken a total of 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** 3 units; 3 hours Lecture

Recommended Preparation: MATH 154.

Repeatability: May be taken a total of 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  Planetary Climate Science
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 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; 3 hours Laboratory
Hybrid Requisite: Completion of or concurrent enrollment in ASTRO 3 or ASTRO 4 or ASTRO 7.
Recommended Preparation: MATH 154.
Repeatability: May be taken a total of 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
1.5 units; 1 hour Lecture, 2 hours Laboratory
Repeatable: May be taken a total of 1 time.
Covers photographic theory and practice at Cabrillo Observatory using telescopes and computers to image and optimize deep sky photo 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
1.5 units; 1 hour Lecture, 2 hours Laboratory
Prerequisite: ASTRO 9A.
Repeatable: May be taken a total of 1 time.
Builds on ASTRO 9A, and includes more advanced digital and video imaging projects, and additional image processing software. Includes optional weekend trip for dark sky imaging.
Transfer Credit: Transfers to CSU.

ASTRO 9C  Astrophotography
1.5 units; 1 hour Lecture, 2 hours Laboratory
Prerequisite: ASTRO 9B.
Repeatable: May be taken a total of 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 25  Field Astronomy in the California Mountains
1 unit; 1 hour Lecture, 0.5 hour Laboratory
Recommended Preparation: Eligibility for MATH 154.
Repeatable: May be taken a total of 1 time.
Studies physical and evolutionary processes of galaxies and stars, and relates the evolution of stars to the formation and evolution of planets at dark-sky mountain campsites. On-campus session followed by a weekend camping trip.
Transfer Credit: Transfers to CSU.

ASTRO 27  Field Astronomy at the Pinnacles
1 unit; 1 hour Lecture, 0.5 hour Laboratory
Repeatable: May be taken a total of 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. Camping fees may apply.
Transfer Credit: Transfers to CSU.

ASTRO 28A-Z  Special Topics in Field Astronomy
1 unit; 1 hour Lecture, 0.5 hour Laboratory
Repeatable: May be taken a total of 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
Mark Ramsey, Associate Dean
Athletics, Kinesiology & Health Sciences
Division Office, Room 1102, (831) 479-6389
Aptos Counseling: (831) 479-6274 for appointment
Watsonville Counseling: (831) 786-4734
Call (831) 479-6266 for more information
http://www.cabrillo.edu/programs

ATH 10  Athletic Conditioning
0.5 – 2 units; 1 – 4 hours Laboratory
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 com­
petitive 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 – 6 hours Laboratory
Repeatability: May be taken a total of 4 times.
Provides instruction in speed, agility, and strength for football condi­
tioning.
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
3 units; 9.72 hours Laboratory
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 15D  Intercollegiate Athletics-Soccer: Men
3 units; 9 hours Laboratory
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
3 units; 9.7 hours Laboratory
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
3 units; 9.7 hours Laboratory
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
3 units; 9.7 hours Laboratory
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
3 units; 9.7 hours Laboratory
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; 3 – 6 hours Laboratory
Repeatability: May be taken a total of 4 times.
For men interested in intercollegiate competition in basketball.
Open entry/open exit.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all ATH & KIN
activity courses combined: maximum credit-4 units.
ATH 15J  **Intercollegiate Athletics-Basketball: Women**
1 – 2 units; 3 – 6 hours Laboratory
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**
3 units; 9.7 hours Laboratory
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 15M  **Intercollegiate Athletics-Softball**
3 units; 9.7 hours Laboratory
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**
3 units; 9.7 hours Laboratory
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**
3 units; 9.7 hours Laboratory
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**
3 units; 9.7 hours Laboratory
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**
3 units; 9.7 hours Laboratory
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 15S  **Intercollegiate Athletics-Sand Volleyball: Women**
3 units; 9.72 hours Laboratory
Repeatability: May be taken a total of 4 times.
Provides instruction and coaching in intercollegiate competition in sand 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 16  **Football Theory and Practice: Offense**
0.5 – 3 units; 1 – 6 hours Laboratory
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. Open entry/open exit.
*Transfer Credit:* Transfers to CSU; UC, pending review.

ATH 17  **Football Theory and Practice: Defense**
0.5 – 3 units; 1 – 6 hours Laboratory
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. Open entry/open exit.
*Transfer Credit:* Transfers to CSU; UC, pending review.
ATH 21  Football Theory and Practice: Special Teams  
0.5 – 3 units; 1 – 6 hours Laboratory  
Repeatability: May be taken a total of 4 times.  
Presents the theory and practice of football special teams, including explanation, organization, and development of special teams skills and strategies. Open entry/open exit.  
Transfer Credit: Transfers to CSU; UC, pending review.

ATH 30  Baseball Skills Development  
0.5 – 3 units; 1 – 6 hours Laboratory  
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, with limits: Any or all ATH & KIN activity courses combined: maximum credit-4 units.

ATH 31  Basketball Skills Development  
0.5 – 3 units; 1 – 6 hours Laboratory  
Repeatability: May be taken a total of 4 times.  
Provides off season skills development and conditioning for intercollegiate basketball.  
Transfer Credit: Transfers to CSU; UC, with limits: Any or all ATH & KIN activity courses combined: maximum credit-4 units.

ATH 32  Football Skills Development  
0.5 – 3 units; 1 – 6 hours Laboratory  
Repeatability: May be taken a total of 4 times.  
Provides instruction in offensive and defensive techniques and tactics associated with Intercollegiate Football.  
Transfer Credit: Transfers to CSU; UC, with limits: Any or all ATH & KIN activity courses combined: maximum credit-4 units.

ATH 33  Soccer Skills Development  
0.5 – 3 units; 1 – 6 hours Laboratory  
Repeatability: May be taken a total of 4 times.  
Provides off season skills development and conditioning for intercollegiate soccer.  
Transfer Credit: Transfers to CSU; UC, with limits: Any or all ATH & KIN activity courses combined: maximum credit-4 units.

ATH 34  Softball Skills Development  
0.5 – 3 units; 1 – 6 hours Laboratory  
Repeatability: May be taken a total of 4 times.  
Provides off season skills development and conditioning for women's intercollegiate softball.  
Transfer Credit: Transfers to CSU; UC, with limits: Any or all ATH & KIN activity courses combined: maximum credit-4 units.

ATH 35  Volleyball Skills Development  
0.5 – 3 units; 1 – 6 hours Laboratory  
Repeatability: May be taken a total of 4 times.  
Provides off season skills development and conditioning for intercollegiate volleyball.  
Transfer Credit: Transfers to CSU; UC, with limits: Any or all ATH & KIN activity courses combined: maximum credit-4 units.

ATH 36  Water Polo Skills Development  
0.5 – 3 units; 1 – 6 hours Laboratory  
Repeatability: May be taken a total of 4 times.  
Provides off season skills development and conditioning for intercollegiate water polo.  
Transfer Credit: Transfers to CSU; UC, with limits: Any or all ATH & KIN activity courses combined: maximum credit-4 units.

ATH 38  Swimming Skills Development  
0.5 – 3 units; 1 – 6 hours Laboratory  
Repeatability: May be taken a total of 4 times.  
Provides off season skills development and conditioning for intercollegiate swimming and diving.  
Transfer Credit: Transfers to CSU; UC, with limits: Any or all ATH & KIN activity courses combined: maximum credit-4 units.

ATH 39  Tennis Skills Development  
0.5 – 3 units; 1 – 6 hours Laboratory  
Repeatability: May be taken a total of 4 times.  
Provides off season skills development and conditioning for intercollegiate tennis.  
Transfer Credit: Transfers to CSU; UC, with limits: Any or all ATH & KIN activity courses combined: maximum credit-4 units.
BILINGUAL/BICULTURAL STUDIES

Business, English, and Language Arts Division

James Weckler, Division Dean
Francisco Iñiguez, Department Chair, (831) 479-6407
Division Office, Room 301
Aptos Counseling: (831) 479-6274 for appointment
Watsonville Counseling: (831) 786-4734
http://www.cabrillo.edu/programs

Bilingual/Bicultural Studies A.A. Degree

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 5A-30B. Students may also meet the language requirement through a skills assessment. Students fulfilling the language requirement either partially or completely through equivalency may substitute classes from the list of approved electives for the Spanish courses. In addition to BBS 32 and the Spanish courses, students take 1-5 units of BBS approved electives to complete at least 20 units.

The program listed below is a pattern of courses leading to an Associate in Arts Degree only. Students who plan to transfer should select as many electives as possible that meet the lower division requirements of the major they plan to pursue.

Learning Outcomes

The Cabrillo College Core Competencies (with an emphasis in the study of Bilingual/Bicultural Studies):
1. Communication: Reading, Writing, Listening, Speaking and/or Conversing.
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving.

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.

<table>
<thead>
<tr>
<th>A.A. General Education Core Courses (17-29 Units)</th>
<th>30 Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BBS 32 Issues of Linguistic and Cultural Diversity in Education, History and Politics</td>
<td>3 Units</td>
</tr>
<tr>
<td>SPAN 1 Elementary Spanish I</td>
<td>5 Units</td>
</tr>
<tr>
<td>SPAN 2 Elementary Spanish II</td>
<td>5 Units</td>
</tr>
<tr>
<td>or SPAN 3 Intermediate Spanish I</td>
<td>5 Units</td>
</tr>
<tr>
<td>or SPAN 16 Elementary Spanish for Spanish Speakers I</td>
<td>4 Units</td>
</tr>
<tr>
<td>or SPAN 4 Intermediate Spanish II</td>
<td>5 Units</td>
</tr>
<tr>
<td>or SPAN 17 Elementary Spanish for Spanish Speakers II</td>
<td>4 Units</td>
</tr>
</tbody>
</table>

plus two courses from the following:

| SPAN 5A Advanced Grammar and Composition | 3 Units |
| SPAN 6A Spanish Through Film - Latin America | 3 Units |
| SPAN 6B Spanish Through Film - Spain | 3 Units |
| SPAN 10A Intermediate Spanish Conversation | 3 Units |
| SPAN 10B Advanced Spanish Conversation | 3 Units |
| SPAN 25 Spanish Through Literature - Spain | 3 Units |
| SPAN 26 Spanish Through Literature - Latin America | 3 Units |
| SPAN 30B Mexican Civilization and Culture | 3 Units |

Approved Electives (1-13 Units)

| AH 19 Art of the Americas | 3 Units |
| AH 52 Latin American Art | 3 Units |
| ANTHR 2 Introduction to Anthropology: Cultural | 3 Units |
| or ANTHR 2H | 3 Units |
| COMM 12 Intercultural Communication | 3 Units |
| ENGL 39 Chicana/o-Latina/o Literature | 3 Units |
| GEOG 2 Cultural Geography | 3 Units |
| HIST 16C History of Mexico | 3 Units |
| or HIST 21A Chicano History to 1865 | 3 Units |
| or HIST 21AH Chicano History since 1865 | 3 Units |
| or HIST 21B Chicano History since 1865 | 3 Units |
| or HIST 21BH Honors Chicano History since 1865 | 3 Units |
| or PHIL 17 Latin American Philosophy | 3 Units |
| or SPAN 5A-30B Advanced Grammar, Film, Conversation, Literature, Special Topics in Culture | 3 - 15 Units |
| WS 2 Global Perspectives on Women and Gender | 3 Units |
| or WS 5 La Mujer: Latina Life and Experience | 3 Units |

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
Repeatability: May be taken a total of 1 time.
Examines issues involving linguistic and cultural diversity in the United States, including topics such as 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.
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 in Biology, Biological Sciences, or Biochemistry, with a choice of concentrations from Biotechnology to Zoology. 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.

Cabrillo offers options for degrees in Biology. The first option listed below is an Associate in Science in Biology 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. IGETC for STEM (for CSU) is required for the Biology A.S.-T degree. 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, or a "P" if the course is taken on a "pass/no pass" basis.
- Certified completion of the California State University General Education-Breadth pattern (CSU GE Breadth) or the Intersegmental General Education Transfer Curriculum (IGETC) pattern.

### Learning Outcomes

The Cabrillo College Core Competencies (with an emphasis in the study of Biology):

1. Communication: Reading, Writing, Listening, Speaking and/or Conversing
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving

### IGETC for STEM for CSU

<table>
<thead>
<tr>
<th>General Education Requirements</th>
<th>31-33 Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Core Courses</strong></td>
<td></td>
</tr>
<tr>
<td>BIO 9A</td>
<td>Molecular, Cellular, and Animal Biology</td>
</tr>
<tr>
<td>BIO 9B</td>
<td>Ecology, Evolution, and Plant Biology</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>MATH 5A</td>
<td>Analytic Geometry and Calculus I</td>
</tr>
<tr>
<td>PHYS 2A</td>
<td><strong>Physics for Life Sciences I</strong></td>
</tr>
<tr>
<td>PHYS 2B</td>
<td><strong>Physics for Life Sciences II</strong></td>
</tr>
<tr>
<td>or</td>
<td>Physics for Scientists and Engineers I</td>
</tr>
<tr>
<td>and</td>
<td>Physics for Scientists and Engineers II</td>
</tr>
</tbody>
</table>

All core courses are also general education courses.

*Students who previously completed the CABRILLO BIO 1ABC series may substitute that series for BIO 9AB for this degree.

### List B - Courses that may be required by the transfer institution, but are not required for the degree.

<table>
<thead>
<tr>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 6</td>
</tr>
<tr>
<td>CHEM 12A</td>
</tr>
<tr>
<td>CHEM 12AL</td>
</tr>
<tr>
<td>CHEM 12B</td>
</tr>
<tr>
<td>CHEM 12BL</td>
</tr>
<tr>
<td>MATH 5B</td>
</tr>
<tr>
<td>MATH 12</td>
</tr>
<tr>
<td>MATH 12H</td>
</tr>
<tr>
<td>PSYCH 1</td>
</tr>
<tr>
<td>PSYCH 1H</td>
</tr>
<tr>
<td>PSYCH 4</td>
</tr>
</tbody>
</table>

### Total Units

60

### Biology A.S. Degree

#### Learning Outcomes

The Cabrillo College Core Competencies (with an emphasis in the study of Biology):

1. Communication: Reading, Writing, Listening, Speaking and/or Conversing
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving

#### 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. This degree may be completed as a transferable Associate in Science degree with the addition of university admission requirements and increased general education requirements.

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.

**A.S. General Education Biology Core**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 9A</td>
<td>Molecular, Cellular, and Animal Biology</td>
</tr>
<tr>
<td>BIO 9B</td>
<td>Ecology, Evolution, and Plant Biology</td>
</tr>
</tbody>
</table>

**Related Disciplines (Choose 29 units)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<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 12A</td>
<td>Organic Chemistry I</td>
</tr>
<tr>
<td>CHEM 12AL or CHEM 12B</td>
<td>Organic Chemistry Laboratory</td>
</tr>
<tr>
<td>CHEM 12BL</td>
<td>Organic Chemistry Laboratory II</td>
</tr>
</tbody>
</table>

**Foreign Language**

- Units: 0 - 12

**MATH 5A** Analytic Geometry and Calculus I
- Units: 5

**MATH 5B** Analytic Geometry and Calculus II
- Units: 5

**MATH 5C** Analytic Geometry and Calculus III
- Units: 5

**PHYS 2A** Physics for Life Sciences I
- Units: 4

**PHYS 2B** Physics for Life Sciences II
- Units: 4

**PHYS 4A** Physics for Scientists and Engineers I
- Units: 5

**PHYS 4B** Physics for Scientists and Engineers II
- Units: 5

**PHYS 4C** Physics for Scientists and Engineers III
- Units: 5

**Total Units**: 60

**Fall only; Spring only**

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

**Certificate of Competency in Preparation for the STEM Workforce**

The Certificate of competency in STEM is designed to enhance student preparation for diverse STEM careers, and the knowledge, skills, and abilities required to be successful. The Certificate emphasizes hands-on and applied experiences for specific technical competence, as well as skills aimed at broad preparation to enter a variety of STEM fields.

**Learning Outcomes**

1. Develop workplace skills including scientific communication, scientific literacy, inter/intrapersonal skills, analyze scientific information, and strategies for gaining employment in STEM fields.
2. Demonstrate career specific skills that involve biological research, including designing and implementing research projects, and then evaluating and communicating the project results in a professional setting.

**Required Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 400</td>
<td>STEM Skills For Success</td>
</tr>
<tr>
<td>BIO 450</td>
<td>Applied Research in Biology</td>
</tr>
</tbody>
</table>

**Biology Courses**

**BIO 4** Human Anatomy
4 units; 3 hours Lecture, 3 hours Laboratory
Hybrid Requisite: Completion of or concurrent enrollment in BIO 101.
Recommended Preparation: MA 70 and MA 170B.
Repeatability: May be taken a total of 1 time.
Transfer Credit: Transfers to CSU; UC, with limits: BIO 4 combined with BIO 5 and 13A + 13AL: maximum credit-2 courses. C-ID: BIOL 110B

**BIO 4A** Human Anatomy Coordinated Studies
1 unit; 3 hours Laboratory
Repeatability: May be taken a total of 1 time.
Provides an enrichment program in anatomy, to be taken concurrently 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 3 and CHEM 3L taken at college (CHEM 3 + CHEM 3L formerly identified as CHEM 2) or CHEM 30A or CHEM 32 or CHEM 1A.
Recommended Preparation: BIO 4.
Repeatability: May be taken a total of 1 time.
Transfer Credit: Transfers to CSU; UC, with limits: BIO 4 combined with BIO 5 and 13A + 13AL: maximum credit-2 courses. C-ID: BIOL 110B

**BIO 6** Microbiology
4 units; 3 hours Lecture, 3 hours Laboratory
Prerequisite: CHEM 3 and CHEM 3L taken at college (CHEM 3 + CHEM 3L formerly identified as CHEM 2) or CHEM 30A or CHEM 32 or CHEM 1A.
Hybrid Requisite: Completion of or concurrent enrollment in BIO 101.
Recommended Preparation: BIO 4.
Repeatability: May be taken a total of 1 time.
Provides 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 9A  Molecular, Cellular, and Animal Biology**
5 units; 3 hours Lecture, 6 hours Laboratory
Prerequisite: BIO 1A, 1B, 1C, 9A or 9B.
Hybrid Requisite: Completion of or concurrent enrollment in BIO 101.
Repeatability: May be taken a total of 1 time.
Examines the principles and applications of molecular biology, cell biology, and animal biology. Topics include prokaryotic and eukaryotic cell structure and function, biological molecules, homeostasis, cell reproduction, genetics, metabolism, cellular communication, animal diversity, animal anatomy, and animal physiology. The philosophy of science, methods of scientific inquiry and experimental design are foundational. Students enrolled in the Honors Transfer Program may count this course toward the Honors Scholar designation with an Honors Contract.
Transfer Credit: Transfers to CSU; UC. C-ID: BIO 9A + BIO 9B = C-ID: BIOL 135S

**BIO 9B  Ecology, Evolution, and Plant Biology**
5 units; 3 hours Lecture, 6 hours Laboratory
Prerequisite: BIO 9A and MATH 152.
Hybrid Requisite: Completion of or concurrent enrollment in BIO 101.
Repeatability: May be taken a total of 1 time.
Examines ecological and evolutionary processes, and the biology of plants and fungi. Topics include plant and fungal structure, function, and diversity; community, population, and ecosystem ecology; ecosystem diversity; evolutionary mechanisms, population genetics, speciation and extinction. Students enrolled in the Honors Transfer Program may count this course toward the Honors Scholar designation with an Honors Contract.
Transfer Credit: Transfers to CSU; UC. C-ID: BIO 9A + BIO 9B = C-ID: BIOL 135S

**BIO 11A  General Biology**
4 units; 3 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for MATH 154.
Hybrid Requisite: Completion of or concurrent enrollment in BIO 101.
Repeatability: May be taken a total of 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 limits: No credit if taken after BIO 1A, 1B, 1C, 9A or 9B.

**BIO 11B  Marine Biology**
4 units; 3 hours Lecture, 3 hours Laboratory
Repeatability: May be taken a total of 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 101.
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 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 13A  Biology of People-Anatomy and Physiology**
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 100 or ESL 100 and READ 100.
Repeatability: May be taken a total of 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 nonscience 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 101.
Repeatability: May be taken a total of 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 31  Animal Behavior**
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 1 time.
Explores basic principles of genetics, evolution, ecology, and the scientific method as illustrated in the study of animal behavior. Includes the challenges of growing up, catching food, avoiding predators, migrating, navigating, communicating, making homes, competing for mates, courting, sex, taking care of offspring, and complex social behaviors.
Transfer Credit: Transfers to CSU; UC, with conditions: No credit if taken after BIO 1B, 9A or 9B.
**BIO 41T** Biotechnology Fundamentals  
4 units; 2 hours Lecture, 6 hours Laboratory  
Prerequisite: MATH 154 or MATH 154B; CHEM 3 and CHEM 3L (CHEM 3 +CHEM 3L formerly identified as CHEM 2) or high school chemistry or equivalent or higher level chemistry course; BIO 11A or high school biology or equivalent or higher level biology course.  
Repeatability: May be taken a total of 1 time.  
Provides opportunities for Biology students to participate in original research projects to gain skills for career and academic success. Activities include experimental design, data collection and analysis, and interpretation and presentation of results. Research areas span molecular biology and microbial genetics to population biology, marine biology, and ecology.  
Transfer Credit: Transfers to CSU; UC, pending review.

**BIO 42T** Advanced Biotechnology  
4 units; 2 hours Lecture, 6 hours Laboratory  
Prerequisite: BIO 41T or equivalent skills.  
Recommended Preparation: MATH 152 or MATH 152B or equivalent skills.  
Repeatability: May be taken a total of 1 time.  
Repeatability: May be taken a total of 1 time.  
Provides the field of biotechnology and teaches fundamental skills required to obtain employment in biotechnology. Topics include careers in biotechnology, basic laboratory skills and equipment use, DNA isolation and manipulation, DNA technology, keeping a notebook, safety, scientific literacy, and report writing.  
Transfer Credit: Transfers to CSU; UC, pending review.

**BIO 101** Introduction to Microscopy  
0.25 units; 0.25 hour lecture, 0.25 hour Laboratory  
Repeatability: May be taken a total of 1 time.  
Introduces proper use and handling of light compound and dissection microscopes. Other topics include the history and principles of microscopy, and preparation and observation of biological specimens for microscopy.  
Transfer Credit: Non-transferable.

**BIO 400** STEM Skills for Success  
0 units; 54 total hours Lecture  
Repeatability: This course may be repeated.  
Teaches employability skills, scientific literacy, and analytical thinking for STEM majors.

**BIO 450** Applied Research in Biology  
0 units; 18 total hours Lecture, 54-162 total hours Laboratory  
Recommended Preparation: BIO 9A.  
Repeatability: This course may be repeated.  
Provides opportunities for Biology students to participate in original research projects to gain skills for career and academic success. Activities include experimental design, data collection and analysis, and interpretation and presentation of results. Research areas span molecular biology and microbial genetics to population biology, marine biology, and ecology.

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**BUSINESS**  
Business, English, and Language Arts  
James Weckler, Division Dean  
Division Office, Room 301  
Mo Hassan, Department Chair, (831) 477-3201  
Apts Counseling: (831) 479-6274 for appointment  
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Call (831) 479-6478 for more information  
http://www.cabrillo.edu/programs

**Business Administration A.S.-T Transfer Degree**  
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. 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, or a “P” if the course is taken on a “pass/no pass” basis. Note: this degree requires greater than 18 units in the major for completion.
- Certified completion of the California State University General Education-Breadth pattern (CSU GE Breadth) or the Intersegmental General Education Transfer Curriculum (IGETC) pattern.

**Learning Outcomes**  
The Cabrillo College Core Competencies (with an emphasis in the study of Business):

1. Communication: Reading, Writing, Listening, Speaking and/or Conversing
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving

CSU or IGETC for CSU General Education Requirements 37-39 Units

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
BUS 18  Business Law ................................................................. 4
BUS 20  Introduction to Business .................................................... 3
BUS 60  International Business ...................................................... 3
ECON 1A  Introduction to Macroeconomics .................................... 3
ECON 1B  Introduction to Microeconomics ..................................... 3
MATH 13  Finite Mathematics ........................................................ 3
MATH 18  Business Calculus .......................................................... 4

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

Electives:  
(Any Course numbered 1-199) ........................................... 10

Total Units 60

General Business (Occupational) A.S. Degree

Learning Outcomes
The Cabrillo College Core Competencies (with an emphasis in the study of Business):
1. Communication: Reading, Writing, Listening, Speaking and/or Conversing
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving

A.S. General Education 21 Units

General Business Occupational Core Courses (25 Units)

ACCT 1A  Financial Accounting .................................................... 4
ACCT 1B  Managerial Accounting .................................................... 4
BUS 5  Business Information Systems .............................................. 4
BUS 9  Business Statistics ............................................................. 3
BUS 18  Business Law ................................................................. 4
BUS 20  Introduction to Business .................................................... 3
BUS 60  International Business ...................................................... 3
BUS 82  Marketing Principles ........................................................ 3
FIN 4  Money Management ........................................................... 4

Approved Electives (9 Units)

ACCT 1B  Managerial Accounting .................................................... 4
BUS 9  Business Statistics ............................................................. 3
BUS 50  Advertising for Small Business ......................................... 3
BUS 52  Business Communications ................................................. 3
BUS 67  Human Relations and Resources ....................................... 3
BUS 71  International Marketing ..................................................... 3
BUS 75  Business, Society and Government ................................... 3
BUS 88  Starting and Operating a New Small Business ..................... 3
BUS 89  Starting & Operating an eCommerce Business .................... 3
BUS 199C  Career Work Experience Education ............................... 1 - 4

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

Total Units 60

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.
General Business Certificate of Achievement

Learning Outcomes
The Cabrillo College Core Competencies (with an emphasis in the study of Business):
1. Communication: Reading, Writing, Listening, Speaking and/or Conversing
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving

General Business Occupational Core Courses (25 Units)
ACCT 1A Financial Accounting.................................4
BUS 5 Business Information Systems.........................4
BUS 18 Business Law..................................................4
BUS 20 Introduction to Business.................................3
BUS 60 International Business.................................3
BUS 82 Marketing Principles..................................3
FIN 4 Money Management......................................4

Required Courses
CABT 157 Business and Technical Writing..................3
or
ENGL 100 Elements of Writing................................3
or
ESL 100 High Advanced Academic ESL..................4-6
or
ENGL 1A/1AH/1AMC/1AMCH........................................3

Total Units 28

Entrepreneurships/Small Business Skills Certificate
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: Upon completion students will be able to: Critically evaluate business plans and describe the processes required to establish, operate and measure the viability of a small business. Assess and analyze costs and revenues of a small business. Comprehend the dynamics and operations of an e-commerce business.

Learning Outcomes
1. Develop a viable business plan and venture creation plan.
2. Assess market and competitive alternatives and develop Marketing strategies.
3. Develop strategies to create value for both the customers and the organization.
4. Develop and assess financial plans for start-up capital and operations.

Certificate Requirements:
BUS 50 Advertising for Small Business..........................3
BUS 88 Starting and Operating a New Small Business.......3
BUS 89 Starting & Operating an eCommerce Business.......3

Take two of the following
ACCT 151A Introduction to Accounting: Bookkeeping Concepts..........................4
or
BUS 18 Business Law..................................................4
or
BUS 52 Business Communications.............................3
or
BUS 60 International Business..................................3
or
BUS 67 Human Relations and Resources.....................3
or
BUS 82 Marketing Principles..................................3
or
FIN 4 Money Management......................................4

Total Units 15 - 17

Business Courses

BUS 5 Business Information Systems
4 units; 3 hours Lecture, 3 hours Laboratory
Repeatability: May be taken a total of 1 time.
Introduces business information systems, the importance of business intelligence in maintaining competitive advantage, ethical issues in business intelligence, concepts of databases and data storage systems, supply chain information systems, customer relationship systems, enterprise resource planning systems, and concepts of eBusiness and wireless technology in business. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC. C-ID: BUS 140

BUS 9 Business Statistics
3 units; 3 hours Lecture, 1 hour Laboratory
Prerequisite: MATH 142 or MATH 142B or MATH 152 or equivalent skills.
Repeatability: May be taken a total of 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, with limits: BUS 9, PSYCH 2A and MATH 12/12H combined: maximum credit-1 course.

BUS 18 Business Law
4 units; 3 hours Lecture, 2 hours Laboratory
Repeatability: May be taken a total of 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 120
BUS 20  Introduction to Business  
3 units; 3 hours Lecture  
Repeatability: May be taken a total of 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  
Repeatability: May be taken a total of 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  
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.  
Repeatability: May be taken a total of 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. 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. May be offered in a Distance-Learning Format.  
Transfer Credit: Transfers to CSU. C-ID: BUS 115

BUS 60  International Business  
3 units; 3 hours Lecture  
Repeatability: May be taken a total of 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  
Repeatability: May be taken a total of 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 71  International Marketing  
3 units; 3 hours Lecture  
Repeatability: May be taken a total of 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  
Repeatability: May be taken a total of 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  
Repeatability: May be taken a total of 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 88        Starting and Operating a New Small Business
3 units; 3 hours Lecture, 1 hour Laboratory
Repeatability: May be taken a total of 1 time.
Teaches skills to succeed in new ventures: legal steps, paperwork, start-up capital, demand, pricing, business feasibility, location, expenses, cash flow, marketing and business plan. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

BUS 89        Starting & Operating an eCommerce Business
3 units; 3 hours Lecture, 2 hours Laboratory
Repeatability: May be taken a total of 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 163        Global Business Management
3 units; 3 hours Lecture
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

BUS 190AZ    Special Topics in Globalization, Business and Society
1 – 4 units; 1 – 4 hours Lecture
Repeatability: May be taken a total of 1 time.
Examines the impact of globalization and technological innovations on modern society, trade, and business practices. Also examines how a specific culture and society manifest itself in business negotiations, etiquette, and world trade. May focus on a specific country, region, or area to examine the impacts and manifestations. May be offered in a Distance-Learning Format.
Transfer Credit: Non-transferable.

CHEMISTRY
Natural and Applied Sciences Division
Jamie Alonzo, Division Dean
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Josh Blaustein, Department Chair, (831) 479-5059
Aptos Counseling: (831) 479-6274 for appointment
Watsonville Counseling: (831) 786-4734
Call (831) 479-6328 for more information
http://www.cabrillo.edu/programs

Chemistry A.A. Degree
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.

Learning Outcomes
The Cabrillo College Core Competencies (with an emphasis in the study of Chemistry):
1. Communication: Reading, Writing, Listening, Speaking and/or Conversing
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving

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. This degree may be completed as a transferable Associate in Science degree with the addition of university admission requirements and increased general education requirements.
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 advice for transfer to any 4-year institution.

**A.A. General Education**

<table>
<thead>
<tr>
<th>Courses (20-24 Units)</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<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>
</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. +Spring, odd years only; ++Fall only; +++Spring only; +++Fall, even years only.*

**Chemistry A.S. Degree**

<table>
<thead>
<tr>
<th>Courses (39 Units)</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 1A</td>
<td>General Chemistry I</td>
</tr>
<tr>
<td>CHEM 1B</td>
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</tr>
<tr>
<td>CHEM 12BL</td>
<td>Organic Chemistry Laboratory II</td>
</tr>
</tbody>
</table>

Foreign Language* | 8 - 12

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 |
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 |
PHYS 4D | ++++ Modern Physics for Scientists and Engineers | 5 |

Electives: Units 6 - 10

Total Units 60

*The student should consult the Catalog of the intended transfer institution concerning the necessity or appropriateness of these courses. +Spring, odd years only; ++Fall only; +++Spring only; +++Fall, even years only.*

**Chemistry Courses**

**CHEM 1A** General Chemistry I
5 units; 3 hours Lecture, 6 hours Laboratory
Prerequisite: CHEM 2 or CHEM 3 and CHEM 3L or equivalent, or high school chemistry with grade of “B” or better and MATH 152 or equivalent.
Repeatable: May be taken a total of 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 120S

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

**CHEM 3** Introductory Inorganic Chemistry
3 units; 3 hours Lecture
Prerequisite: MATH 152.
Repeatable: May be taken a total of 1 time.
Covers fundamental principles of inorganic chemistry. Lecture topics include chemical calculations, classification of matter, the atomic and kinetic theories of matter and the mole concept. CHEM 3L is an additional requirement in preparation for CHEM 1A at Cabrillo. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC, with conditions: No credit if taken after CHEM 1A. CHEM 3 + CHEM 3L = C-ID CHEM 101

**CHEM 3L** Introductory Inorganic Chemistry Laboratory
1 unit; 3 hours Laboratory
Prerequisite: MATH 152.
Hybrid Requisite: Completion of or concurrent enrollment in CHEM 3.
Repeatable: May be taken a total of 1 time.
Presents an introduction to small scale laboratory techniques and the properties of matter, chemical reactions, solubility, gas laws, and acid-base.
Transfer Credit: Transfers to CSU; UC, with conditions: No credit if taken after CHEM 1A. CHEM 3 + CHEM 3L = C-ID CHEM 101.
CHEM 5  Quantitative Analysis  
4 units; 2 hours Lecture, 6 hours Laboratory  
Prerequisite: CHEM 1B. 
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 MATH 154.  
Repeatability: May be taken a total of 1 time.  
Presents an introduction to atoms, molecules, reactions, nomenclature and energy, including the chemical concepts most useful for understanding contemporary life—food, water, materials, nuclear reactions, and 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.  
Repeatability: May be taken a total of 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 with an Honors Contract.  
Transfer Credit: Transfers to CSU; UC. CHEM 12A + AL = C-ID CHEM 150.

CHEM 12AL  Organic Chemistry Laboratory I  
2 units; 6 hours Laboratory  
Prerequisite: CHEM 1B.  
Hybrid Requisite: Completion of or concurrent enrollment in CHEM 12A.  
Repeatability: May be taken a total of 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 with an Honors Contract.  
Transfer Credit: Transfers to CSU; UC. CHEM 12A + AL = C-ID CHEM 150.

CHEM 12B  Organic Chemistry II  
3 units; 3 hours Lecture  
Prerequisite: CHEM 12A.  
Repeatability: May be taken a total of 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 with an Honors Contract.  
Transfer Credit: Transfers to CSU; UC. CHEM 12A + AL + B + BL = 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.  
Repeatability: May be taken a total of 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 with an Honors Contract.  
Transfer Credit: Transfers to CSU; UC. CHEM 12A + AL + B + BL = C-ID CHEM 160S.

CHEM 30A  Inorganic Chemistry for Health Occupations  
4 units; 3 hours Lecture, 3 hours Laboratory  
Prerequisite: MATH 152 or MATH 152A and MATH 152B or MATH 142 or MATH 142A and MATH 142B.  
Repeatability: May be taken a total of 1 time.  
Presents 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 CHEM 3 and CHEM 3L or high school chemistry.  
Repeatability: May be taken a total of 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 152 or MATH 152A and MATH 152B or MATH 142 or MATH 142A and MATH 142B.
Repeatable: May be taken a total of 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.

COMMUNICATION STUDIES
Human Arts and Social Sciences Division
Paul Harvell, Division Dean
Division Office, Room 420
Department Chair, Vicki Fabbrini, (831) 479-6553
Aptos Counseling: (831) 479-6274 for appointment
Watsonville Counseling: (831) 786-4734
Call (831) 479-6297 for more information
http://www.cabrillo.edu/programs

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 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, or a “P” if the course is taken on a “Pass/No Pass” basis.
• Certified completion of the California State University General Education-Breadth pattern (CSU GE Breadth) or the Intersegmental General Education Transfer Curriculum (IGETC) pattern.
Learning Outcomes
The Cabrillo College Core Competencies (with an emphasis in the study of Communication Studies):
1. Communication: Reading, Writing, Listening, Speaking and/or Conversing
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving

CSU or IGETC for CSU General Education Requirements 37-39 Units

Core Course (3 units)
COMM 1 Public Speaking......................................................3
or
COMM 1H Honors Public Speaking........................................3

List A - Select 2 courses from: (6 units) Units
COMM 2 Group Discussion...................................................3
COMM 4 Argumentation and Persuasion.................................3
COMM 7 Interpersonal Communication.................................3

List B - Select 2 courses from: (6 units) Units
Any course not used from List A above or
AP 9A Beginning Photography..............................................3
or
COMM 10 Communication Process........................................3
COMM 12 Intercultural Communication.................................3
dM 1 Introduction to Digital Media.....................................4
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
JOURN 21 Mass Communications ....................................3
JOURN 54A Newspaper Production: Reporting and Photography .................................................................1
JOURN 54B Newspaper Production: Editing............................1
JOURN 54C Newspaper Production: Management...................1
MATH 12 Elementary Statistics..............................................5
or
MATH 12H Honors Elementary Statistics.............................5
or
PSYCH 2A Statistics for Behavioral Sciences.......................3

List C - Select one course from: (3 units) Units
Any course not used from Lists A or B above or
ANTHR 2 Introduction to Anthropology: Cultural.............3
ANTHR 2H Honors Introduction to Anthropology: Cultural.3
COMM 6 Listening.................................................................1
COMM 8 Communication Activities.....................................3
COMM 14 Health Communication........................................3
ENGL 1B Composition and Literature..................................3
ENGL 18H Honors Composition and Literature...................3
ENGL 18MC Composition and Literature: Multicultural Emphasis.........................3
ENGL 2 Composition and Critical Thinking............................3
ENGL 2H Honors Composition and Critical Thinking.........3


ENGL 2MC Composition and Critical Thinking: Multicultural Emphasis.............3
ENGL 2MCH Honors Composition and Critical Thinking: Multicultural Emphasis........3
JOURN 23A Reporting for the News Media..........................3
ENGL 23A Reporting for the News Media..........................3
PSYCH 1 General Psychology.............................................3
PSYCH 1H Honors General Psychology...............................3
SOC 1 Introduction to Sociology: Understanding Society........3
SOC 1H Honors Introduction to Sociology: Understanding Society..............3

Electives:
(Any Course Numbered 1-99).................................................3 - 5

Total Units 60

Communication Studies A.A. Degree

Learning Outcomes
The Cabrillo College Core Competencies (with an emphasis in the study of Communication Studies):
1. Communication: Reading, Writing, Listening, Speaking and/or Conversing
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving

Model Program for Communication 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  
Core Courses (13 Units)  

<table>
<thead>
<tr>
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<tbody>
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<td>or</td>
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<tr>
<td>COMM 1H</td>
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<tr>
<td>COMM 2</td>
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<td>COMM 6</td>
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<td>COMM 10</td>
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<td>COMM 12</td>
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Approved Electives (7 Units)  

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<td>COMM 7</td>
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<td>COMM 8</td>
<td>3</td>
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<tr>
<td>COMM 14</td>
<td>3</td>
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<tr>
<td>CS 1</td>
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<td>or</td>
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<td>MATH 12 or MATH 12H</td>
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<td>PSYCH 1 or PSYCH 1H</td>
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<tr>
<td>or</td>
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<tr>
<td>SOC 1 or SOC 1H</td>
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</table>

Electives:  
(Any Course Number 1-99) 10

Total Units 60

Communication Studies Courses

COMM 1  Public Speaking  
3 units; 3 hours Lecture  
Hybrid Requisite: Completion of or concurrent enrollment in COMM 6.  
Repeatability: May be taken a total of 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 1H  Honors Public Speaking  
3 units; 3 hours Lecture  
Prerequisite: Honors Standing.  
Hybrid Requisite: Completion of or concurrent enrollment in COMM 6.  
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.  
Repeatability: May be taken a total of 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  
Hybrid Requisite: Completion of or concurrent enrollment in COMM 6.  
Repeatability: May be taken a total of 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  
Prerequisite: ENGL 100 or ESL 100 and READ 100.  
Repeatability: May be taken a total of 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. C-ID: COMM 120

COMM 6  Listening  
1 unit; 1 hour Lecture  
Repeatability: May be taken a total of 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  
Repeatability: May be taken a total of 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; 3 hours Lecture  
Repeatability: May be taken a total of 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
Repeatability: May be taken a total of 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. C-ID: COMM 115

COMM 12 Intercultural Communication
3 units; 3 hours Lecture
Repeatability: May be taken a total of 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
Repeatability: May be taken a total of 1 time.
Introduces the theory and practice of health communication in culturally diverse settings. Covers patient-caregiver communication, the social, cultural, and political influences on health care access and utilization, and the impact of organizational culture on health care and communication. 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.
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

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<tr>
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<tbody>
<tr>
<td>CABT 31</td>
<td>Microsoft Word</td>
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<tr>
<td>CABT 38</td>
<td>Introduction to Microsoft Office</td>
<td>3-4</td>
</tr>
<tr>
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<td>Excel</td>
<td>3</td>
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<td>CABT 100</td>
<td>Business Technology &amp; Procedures</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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<td>CABT 105</td>
<td>Records and Information Management</td>
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<td>CABT 108</td>
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<td>CABT 156</td>
<td>Writing for the Workplace</td>
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<tr>
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<td>Business and Technical Writing</td>
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<tr>
<td>CABT 160</td>
<td>Outlook and Internet for the Workplace</td>
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</table>

Any course numbered 1-199 .......................................................... 0-1

Total Units 60

Computer Applications/Business Technology Certificate of Achievement

Learning Outcomes

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 complex electronic and paper-based correspondence and documents.

3. Actively assist in implementing general office procedures, including records management.

4. Demonstrate high and efficient qualities of self-management and self-awareness in terms of workplace responsibility and productivity.

5. Demonstrate the ability to competently use a wide variety of office equipment, including computers, peripherals, and non-computerized office machines.

CABT Core Courses (32.5 - 33.5 units)

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<td>CABT 105</td>
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<tr>
<td>CABT 199C</td>
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Total Units 32.5 - 33.5

Administrative Support Certificate of Achievement

Learning Outcomes

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 complex electronic and paper-based correspondence and documents.

3. Actively assist in implementing general office procedures, including records management.

4. Demonstrate high and efficient qualities of self-management and self-awareness in terms of workplace responsibility and productivity.

5. Demonstrate the ability to competently use a wide variety of office equipment, including computers, peripherals, and non-computerized office machines.

CABT Core Courses (32.5 - 33.5 units)

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</table>

Total Units 32.5 - 33.5

Business Information Worker Certificate of Achievement

The Business Information Worker Certificate of Achievement prepares students for entry-level careers in business and professional workplace settings.

Learning Outcomes

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 complex electronic and paper-based correspondence and documents.
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.

4. Actively assist in implementing general office procedures, including records management.

5. Demonstrate high and efficient qualities of self-management and self-awareness in terms of workplace responsibility and productivity.

6. Demonstrate the ability to competently use a wide variety of office equipment, including computers, peripherals, and non-computerized office machines.

**CABT Required Courses (27 units)**

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<th>Course Code</th>
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<tr>
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</table>

**Total Units** 27

**Computer Proficiency Skills Certificate**

**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>
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<th>Course Title</th>
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<tbody>
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</table>

**Total Units** 4

**Office Software Skills Certificate**

**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.

**Required Courses**

<table>
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</tr>
</tbody>
</table>

**Total Units** 17.5

**Social Media Skills Certificate**

**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.

**Required Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CABT 100</td>
<td>Business Technology &amp; Procedures</td>
<td>3</td>
</tr>
<tr>
<td>CABT 108</td>
<td>Social Media for Business</td>
<td>3.5</td>
</tr>
<tr>
<td>CABT 161</td>
<td>Creating a Simple Web Site</td>
<td>1.5</td>
</tr>
</tbody>
</table>

**Total Units** 8

**Digital Literacy Certificate of Competency**

The certificate of competency in digital literacy is designed to accompany courses that prepare students for the workforce. The noncredit courses needed for completion introduce students to basic computer skills, library research, and web-based resources.

**Learning Outcomes**

Demonstrate and apply basic computer technology skills necessary for the completion of college course work, including basic file management, e-mail, document creation, use of library tools, use of Microsoft Word for document creation, and Internet research. Apply basic technology skills to identify, locate, retrieve, evaluate, and use a variety of reliable information sources, both print and electronic, for specific college courses or course-related work. Understand and employ conventions of acknowledging the work of others.

**Required Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CABT 400</td>
<td>Digital Literacy I</td>
</tr>
<tr>
<td>LIBR 400</td>
<td>Digital Literacy I</td>
</tr>
<tr>
<td>CABT 401</td>
<td>Digital Literacy II</td>
</tr>
<tr>
<td>LIBR 401</td>
<td>Digital Literacy II</td>
</tr>
</tbody>
</table>

**Beginning Technology Skills Certificate of Competency**

The certificate of completion in beginning technology skills is designed to assist students in courses that prepare them for the workforce. The noncredit courses needed for completion introduce students to beginning computer technology skills in a supportive, self-paced computer lab environment.

**Learning Outcomes**

Apply fundamental and beginning computer technology skills necessary for the basic operation of a printer and a desktop computer, including opening and closing programs, and saving files in a variety of locations. Demonstrate awareness of current human and technology resources available to students in the Aptos and/or Watsonville Computer Technology Center (CTC).

**Required Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CABT 405</td>
<td>Beginning Technology Skills I</td>
</tr>
<tr>
<td>CABT 406</td>
<td>Beginning Technology Skills II</td>
</tr>
</tbody>
</table>
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 118 or equivalent experience.
Repeatability: May be taken a total of 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 – 4 hours Lecture, 2 – 3 hours Laboratory
Prerequisite: CABT 110A and CABT 106 or equivalent skills.
Recommended Preparation: CABT 118 or CABT 101 or equivalent skills; Eligibility for MATH 154.
Repeatability: May be taken a total of 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). May be offered in a Distance-Learning Format. 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
Hybrid Requisite: Completion of or concurrent enrollment in CABT 106 or equivalent computer skills.
Recommended Preparation: CABT 110A or equivalent basic keyboarding skills; Eligibility for MATH 154.
Repeatability: May be taken a total of 1 time.
Covers intermediate features of Microsoft Excel, including creating and managing spreadsheets, charts, small databases, and simple pivot tables. 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. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

**CABT 42  Advanced Spreadsheets**
2 units; 2 hours Lecture, 1 hour Laboratory
Prerequisite: CABT 43 or equivalent spreadsheet experience.
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 1 time.
Teaches advanced features of leading spreadsheet software, such as Microsoft Excel and Google Sheets, including collaborating on shared workbooks, advanced functions and tools for data analysis. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

**CABT 43  Beginning/Intermediate Spreadsheets**
2 units; 2 hours Lecture, 1 hours Laboratory
Prerequisite: CABT 101 or equivalent experience.
Recommended Preparation: CABT 110A or equivalent experience; Eligibility for MATH 154.
Repeatability: May be taken a total of 1 time.
Covers beginning to intermediate features of leading spreadsheet software, such as Microsoft Excel and Google Sheets, including creating, organizing, formatting, and managing spreadsheets, as well as sorting data, producing charts, and solving case studies in business and technical fields. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

**CABT 100  Business Technology & Procedures**
3 units; 3 hours Lecture, 2.5 hours Laboratory
Prerequisite: CABT 110A and CABT 101 or CABT 38 or equivalent experience.
Repeatability: May be taken a total of 1 time.
Consolidates the integrated use of business technology in a modern business environment. Topics include the development of coordinated portfolios of business documents based on understanding of computer applications, business equipment, and business procedures. 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. May be offered in a Distance-Learning Format.
Transfer Credit: Non-transferable.

**CABT 101  Computer Proficiency**
3 units; 3 hours Lecture, 2 hours Laboratory
Repeatability: May be taken a total of 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. 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. May be offered in a Distance-Learning Format.
Transfer Credit: Non-transferable.

**CABT 102  10-Key Calculator**
1 unit; 3 hours Laboratory
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 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. Enrollment is permitted through the twelfth week of instruction. May be offered in a Distance-Learning Format.
Transfer Credit: Non-transferable.
CABT 105  Records and Information Management
3 units; 3 hours Lecture, 1 hour Laboratory
Recommended Preparation: CABT 101 or equivalent skills; CABT 110A; CABT 110B.
Repeatability: May be taken a total of 1 time.
Teaches records information management for electronic and physical records; includes database software used for records management, security, and solving common records information management problems. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). May be offered in a Distance-Learning Format. Transfer Credit: Non-transferable.

CABT 106  Introduction to Computers at Cabrillo
0.5 unit; 0.5 hour Lecture
Repeatability: May be taken a total of 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. Transfer Credit: Non-transferable.

CABT 107  Applied Computer Skills
1.5 – 3 units; 1.5 – 3 hours Lecture, 1 – 3 hours Laboratory
Repeatability: May be taken a total of 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. Transfer Credit: Non-transferable.

CABT 108  Social Media for Business
3.5 units; 3 hours Lecture, 2 hours Laboratory
Prerequisite: CABT 101 or equivalent experience.
Recommended Preparation: CABT 161, CABT 157.
Repeatability: May be taken a total of 1 time.
Introduces tools for applying social media to business, including social networking sites, contact management tools, web conferencing, and writing for social media. 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. May be offered in a Distance-Learning Format. Transfer Credit: Non-transferable.

CABT 109  Customer Service and Human Relations
2 units; 2 hours Lecture, 1 hour Laboratory
Repeatability: May be taken a total of 1 time.
Teaches professional customer service skills, professional conduct, and positive problem-solving for modern workplace settings. 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 details about this course offering. Transfer Credit: Non-transferable.

CABT 110A  Computer Keyboarding-Alphabet Keys
0.5 unit; 1.5 hours Laboratory
Prerequisite: CABT 110A or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 or ESL 100 and READ 100.
Repeatability: May be taken a total of 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. Transfer Credit: Non-transferable.

CABT 110B  Computer Keyboarding-Numbers/Symbols
0.5 unit; 1.5 hours Laboratory
Prerequisite: CABT 110B or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 or ESL 100 and READ 100.
Repeatability: May be taken a total of 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. Transfer Credit: Non-transferable.

CABT 110C  Computer Keyboarding-Speed Development
0.5 unit; 1.5 hours Laboratory
Prerequisite: CABT 110C or equivalent skills.
Recommended Preparation: CABT 110B or equivalent skills.
Repeatability: May be taken a total of 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. Transfer Credit: Non-transferable.
CABT 111 Using Speech Recognition Software
1 unit; 1 hour Lecture, 2 hours Laboratory
Repeatability: May be taken a total of 1 time.
Covers the use of speech recognition software to control the computer using voice commands in a hands-free environment. 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: Non-transferable.

CABT 118 Using Microsoft Windows
1 unit; 1 hour Lecture, 0.5 hour Laboratory
Repeatability: May be taken a total of 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. May be offered in a Distance-Learning Format. Transfer Credit: Non-transferable.

CABT 121 Effective Presentations
3 units; 3 hours Lecture, 1 hour Laboratory
Repeatability: May be taken a total of 1 time.
Covers current presentation software and techniques for in-person and virtual presentations. Beginning, intermediate, and expert features of Microsoft PowerPoint and other presentation software necessary to produce complex, professional-quality presentations will be taught. 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. May be offered in a Distance-Learning Format. Transfer Credit: Non-transferable.

CABT 132 Beginning/Intermediate Documents
2 units; 2 hours Lecture, 1 hour Laboratory
Recommended Preparation: CABT 101 or equivalent experience.
Repeatability: May be taken a total of 1 time.
Teaches beginning and intermediate document creation skills, including formatting and layout of documents, using styles and themes, working with images, and professional document standards in Microsoft Word, Google Docs, and other modern document creation programs. May be offered in a Distance-Learning Format. Transfer Credit: Non-transferable.

CABT 133 Advanced Documents
2 units; 2 hours Lecture, 1 hour Laboratory
Recommended Preparation: CABT 132 or equivalent experience.
Repeatability: May be taken a total of 1 time.
Covers the expert features of modern word processing software necessary to produce complex, professional-quality business documents. May be offered in a Distance-Learning Format. Transfer Credit: Non-transferable.

CABT 156 Writing for the Workplace
3 units; 3 hours Lecture
Recommended Preparation: CABT 110A or equivalent keyboarding skills; CABT 101 or equivalent computer skills.
Repeatability: May be taken a total of 1 time.
Provides instruction in effective, mechanically, and grammatically correct workplace written communication. May be offered in a Distance-Learning Format. Transfer Credit: Non-transferable.

CABT 157 Business and Technical Writing
3 units; 3 hours Lecture
Prerequisite: CABT 156.
Repeatability: May be taken a total of 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. Transfer Credit: Non-transferable.

CABT 160 Outlook & Internet for the Workplace
2 units; 2 hours Lecture, 1 hour Laboratory
Repeatability: May be taken a total of 1 time.
Teaches Microsoft Outlook for email, calendaring, project management and meeting scheduling, and Internet skills for the modern workplace. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). May be offered in a Distance-Learning Format. See the Schedule of Classes for the details about this course offering. Transfer Credit: Non-transferable.

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.
Repeatability: May be taken a total of 1 time.
Covers creation of simple websites 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. Transfer Credit: Non-transferable.

CABT 190AZ Special Topics in Computer Applications/Business Technology
0.5 – 3 units; 0.5 – 3 hours Lecture, 0.25 – 1.5 hours Laboratory
Repeatability: May be taken a total of 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. Transfer Credit: Non-transferable.
CABT 210  Basic Computer Keyboarding
0.5 unit; 1.5 hours Laboratory
Repeatability: May be taken a total of 1 time.
Introduces basic alphabetic keyboarding skills in a hands-on, self-paced format. Enrollment is permitted through the twelfth week of instruction. Pass/No Pass grading only.
Transfer Credit: Non-transferable.

CABT 272  Assistive Technology Instruction
1 unit; 1 hour Lecture, 2 hours Laboratory
Recommended Preparation: Eligibility for Accessibility Support Center (ASC).
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

CABT 290AZ  Special Topics in Basic Computer Applications/Business Technology
0.5 – 3 units; 0.5 – 3 hours Lecture, 1.5 – 6 hours Laboratory
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

CABT 400  Digital Literacy I
0 units; 9 hours Laboratory
Provides an introduction to basic computer skills, library research, and web-based campus resources, contextualized for specific courses. Overview of computer lab, local library, e-mail, document creation, file management, books, library databases, website evaluation, and citation as they relate to course assignments. May be offered in Open Entry/Open Exit format.

CABT 401  Digital Literacy II
0 units; 9 hours Laboratory
Continues the introduction to basic computer skills, library research, and web-based campus resources, contextualized for specific courses. Provides an introduction to campus computer labs and library, learning management systems, e-mail, document creation, file management, books and e-books, library databases, source evaluation, and citation as they relate to assignments for Cabrillo College courses. May be offered in Open Entry/Open Exit format.

CABT 405  Beginning Technology Skills I
0 units; 8 hours Laboratory
Beginning computer technology skills taught in a supportive, self-paced computer lab environment. May be offered in an Open Entry/Open Exit format.

CABT 406  Beginning Technology Skills II
0 units; 8 hours Laboratory
Prerequisite: CABT 405 or related experience.
Continuing beginning computer technology skills taught in a supportive, self-paced computer lab environment. May be offered in an Open Entry/Open Exit format.

CABT 411  Beginning Technology Skills-ASC I
0 units; 8 hours Laboratory
Beginning computer technology skills for students who qualify for ASC (Accessibility Support Center) services. Includes standard computer technology and assistive technology hardware and/or software. May be offered in an Open Entry/Open Exit format.

CABT 412  Beginning Technology Skills-ASC II
0 units; 8 hours Laboratory
Prerequisite: CABT 411 or related experience.
Continuing beginning computer technology skills for students who qualify for ASC (Accessibility Support Center) services. Includes standard computer technology and assistive technology hardware and/or software. May be offered in an Open Entry/Open Exit format.
120 | Computer and Information Systems

**COMPUTER AND INFORMATION SYSTEMS**

Natural and Applied Sciences Division
Jamie Alonzo, Division Dean
Division Office, Room 701
Michael Matera, Department Chair, (831) 477-3270
Aptos Counseling: (831) 479-6274 for appointment
Watsonville Counseling: (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, Certificate of Achievements 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
Jamie Alonzo, Division Dean
Division Office, Room 701
Michael Matera, Department Chair, (831) 477-3270
Aptos Counseling: (831) 479-6274 for appointment
Watsonville Counseling: (831) 786-4734
Call (831) 479-6328 for more information
http://www.cabrillo.edu/programs

Computer Networking and System Administration
A.S. Degree
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.

Learning Outcome:
1. Develop network documentation that demonstrates knowledge and skills acquired within a particular technology.
   (Communication, Critical Thinking, Global Awareness, Personal Responsibility and Professional Development)

A.S. General Education

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CABT 157</td>
<td>Business and Technical Writing</td>
<td>3</td>
</tr>
<tr>
<td>CABT 156</td>
<td>Writing for the Workplace</td>
<td>3</td>
</tr>
<tr>
<td>CIS 98</td>
<td>UNIX/Linux Shell Programming</td>
<td>4</td>
</tr>
<tr>
<td>CIS 76</td>
<td>Introduction to Cybersecurity: Ethical Hacking</td>
<td>3</td>
</tr>
<tr>
<td>CIS 77</td>
<td>Computer Forensics Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>CIS 80</td>
<td>Security Administration</td>
<td>3</td>
</tr>
<tr>
<td>CIS 81</td>
<td>Computer Network Fundamentals</td>
<td>4</td>
</tr>
<tr>
<td>CIS 82</td>
<td>Routing and Switching Essentials</td>
<td>4</td>
</tr>
<tr>
<td>CIS 83</td>
<td>Switched Networks &amp; Connecting Networks</td>
<td>4</td>
</tr>
<tr>
<td>CIS 84</td>
<td>Microsoft Windows Server Administration</td>
<td>4</td>
</tr>
<tr>
<td>CIS 85</td>
<td>UNIX/Linux Installation, Configuration and Administration</td>
<td>4</td>
</tr>
<tr>
<td>CIS 86</td>
<td>Microsoft Windows Server Administration</td>
<td>4</td>
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<tr>
<td>CIS 87</td>
<td>Microsoft Windows Server Advanced Configuration</td>
<td>4</td>
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<tr>
<td>CIS 88</td>
<td>Advanced Routing-Cisco CCNP ROUTE</td>
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<tr>
<td>CIS 89</td>
<td>Implementing IP Switching-Cisco CCNP SWITCH</td>
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<tr>
<td>CIS 90</td>
<td>Introduction to UNIX/Linux</td>
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<tr>
<td>CIS 91</td>
<td>Virtualization Infrastructure (VMware ICM)</td>
<td>3</td>
</tr>
<tr>
<td>CIS 92</td>
<td>Microsoft Windows Client Administration</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units: 60
Computer Networking and System Administration Certificate of Achievement

Learning Outcome:
1. Demonstrate mastery of a computing knowledge base equivalent to passing an industry-level certification such as CompTIA, Cisco, Microsoft, Linux. (Communication, Critical Thinking, Global Awareness, Personal Responsibility and Professional Development)

Core Courses (28 Units)                                    Units
CIS 71 Information & Communication Technology Essentials..................4
CIS 75 Fundamentals of Computer Security .........................3
CIS 81 Computer Network Fundamentals..........................4
CIS 82 Routing and Switching Essentials..........................4
CIS 90 Introduction to UNIX/Linux.................................3
CIS 174 Virtualization Infrastructure (VMware ICM) ..........3
CIS 194 Microsoft Windows Client Administration ............3
And one of the following courses:
CS 11 Introduction to Programming Concepts and Methodology, C++ ........................................4
CS 12J Introduction to Programming Concepts and Methodology, Java ........................................4
CS 19 C++ Programming ..................................................4
CS 20J Java Programming ................................................4
CS 15 Cloud Programming with Python..............................4
CIS 31 Perl Programming in a UNIX Environment ...............4
CIS 32 Introduction to Internet Programming ...................4
CIS 33 Introduction to Programming Database-Driven Websites With PHP ........................................4
CIS 98 UNIX/Linux Shell Programming ............................4

Required Courses
COMM 1 Public Speaking.................................................3
or
COMM 1H Honors Public Speaking..................................3
or
COMM 2 Group Discussion.............................................3
or
COMM 10 Communication Process ..................................3
ENGL 1A/1AH/1AMC/1AMCH ........................................3

Total Units 31

Cisco Certified Network Associate (CCNA) Skills Certificate

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

Learning Outcomes:
1. Demonstrate mastery of a networking knowledge base equivalent to obtaining CCNA certification from Cisco Systems. (Communication, Critical Thinking, Global Awareness, Personal Responsibility and Professional Development)
2. Design and implement a converged network. (Communication, Critical Thinking, Global Awareness, Personal Responsibility and Professional Development)

Required Courses
CIS 81 Computer Network Fundamentals..........................4
CIS 82 Routing and Switching Essentials..........................4
CIS 83 Switched Networks & Connecting Networks .........4

Total Units 12

Cybersecurity Skills Certificate

Program Description:
Helps prepare students for entry-level positions and industry certification exams such as CompTIA Security+ and the International Council of E-Commerce Consultants (EC-Council) Certified Ethical Hacker (CEH) and the Computer Hacking Forensics Investigator (CHFI) certifications.

Learning Outcome:
1. Demonstrate mastery of security knowledge and skills equivalent to obtaining CompTIA Security+.

Required Courses
CIS 75 Fundamentals of Computer Security .......................3
CIS 76 Introduction to Cybersecurity: Ethical Hacking .......3
CIS 77 Computer Forensics Fundamentals ....................3
CIS 81 Computer Network Fundamentals .......................4

Total Units 13
Microsoft System Administration Skills Certificate

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

Learning Outcome:
1. Demonstrate mastery of a computing knowledge base equivalent to obtaining Microsoft certifications from Microsoft. (Communication, Critical Thinking, Global Awareness, Personal Responsibility and Professional Development)

Required Courses
- CIS 81 Computer Network Fundamentals..........................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:
Helps prepare students to work with the UNIX/Linux operating system at the client and server levels.

Learning Outcome:
1. Demonstrate mastery of a computing knowledge base equivalent to passing an industry-level certification such as CompTIA and Linux Professional Institute. (Communications, Critical Thinking, Global Awareness, Personal Responsibility and Professional Development)

Required Courses
- CIS 90 Introduction to UNIX/Linux.........................................3
- CIS 98 UNIX/Linux Shell Programming....................................4
- CIS 191AB UNIX/Linux Installation, Configuration and Administration............................................4
- CIS 192AB UNIX/Linux Network Administration.....................4

Total Units 15

COMPUTER SUPPORT
Natural and Applied Sciences Division
Jamie Alonzo, Division Dean
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Michael Matera, Department Chair, (831) 477-3270
Aptos Counseling: (831) 479-6274 for appointment
Watsonville Counseling: (831) 786-4734
Call (831) 479-6328 for more information
http://www.cabrillo.edu/programs

Computer Support A.S. Degree

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. (Communication, Critical Thinking, Global Awareness, Personal Responsibility and Professional Development)
2. Document and communicate problem, analysis and resolution process. (Communication, Critical Thinking, Global Awareness, Personal Responsibility and Professional Development)
3. Implement solutions to customer problems that minimize risk and disruption to productivity. (Communication, Critical Thinking, Global Awareness, Personal Responsibility and Professional Development)

A.S. General Education 21 Units

Core Courses (21 Units)
- CIS 71 Information & Communication Technology Essentials ............................................4
- CIS 81 Computer Network Fundamentals..................................................4
- CIS 90 Introduction to UNIX/Linux..................................................3
- CIS 103 Technical Support as a Profession............................................4
- CIS 174 Virtualization Infrastructure (VMware ICM) ..................3
- CIS 194 Microsoft Windows Client Administration ..................4

Either COMM 1/1H or 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 (10 Units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 15</td>
<td>Cloud Programming with Python</td>
<td>4</td>
</tr>
<tr>
<td>CIS 31</td>
<td>Perl Programming in a UNIX Environment</td>
<td>4</td>
</tr>
<tr>
<td>CIS 32</td>
<td>Introduction to Internet Programming</td>
<td>4</td>
</tr>
<tr>
<td>CIS 33</td>
<td>Intro to Programming Database-Driven Websites with PHP</td>
<td>4</td>
</tr>
<tr>
<td>CIS 46</td>
<td>CCNA Security</td>
<td>4</td>
</tr>
<tr>
<td>CIS 54</td>
<td>Intro. to Database Management</td>
<td>4</td>
</tr>
</tbody>
</table>
### Computer and Information Systems Courses

**Core Courses (21 Units)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 81</td>
<td>Computer Network Fundamentals</td>
<td>4</td>
</tr>
<tr>
<td>CIS 90</td>
<td>Introduction to UNIX/Linux</td>
<td>4</td>
</tr>
<tr>
<td>CIS 103</td>
<td>Technical Support as a Profession</td>
<td>3</td>
</tr>
<tr>
<td>CIS 174</td>
<td>Virtualization Infrastructure (VMware ICM)</td>
<td>3</td>
</tr>
<tr>
<td>CIS 194</td>
<td>Microsoft Windows Client Administration</td>
<td>3</td>
</tr>
</tbody>
</table>

**Required Courses (6 Units)**

<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>COMM 1H</td>
<td>Honors Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>COMM 2</td>
<td>Group Discussion</td>
<td>3</td>
</tr>
<tr>
<td>COMM 10</td>
<td>Communication Process</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1A/1AH/1AMC/1AMCH</td>
<td>Emacs text editor, variables, arrays, lists, functions, and regular expressions.</td>
<td>3</td>
</tr>
</tbody>
</table>

**Computer Support Technician 1 Skills Certificate**

Prepares the student to work with computer hardware and software, specifically, support technicians communicate effectively with users and ensure computer hardware and software operate properly.

**Learning Outcomes**

1. Develop technical documentation for computer user training. (Critical thinking, Professional development, Communication)

**Required Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 71</td>
<td>Information &amp; Communication Technology Essentials</td>
<td>4</td>
</tr>
<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 194</td>
<td>Microsoft Windows Client Administration</td>
<td>3</td>
</tr>
<tr>
<td>COMM 6</td>
<td>Listening</td>
<td>1</td>
</tr>
</tbody>
</table>

**Total Units**

**Computer & Information Systems Courses**

**CIS 15 Cloud Programming with Python**

4 units; 4 hours Lecture, 1 hour Laboratory

Recommended Preparation: Eligibility for MATH 154.

Repeatability: May be taken a total of 1 time.

Teaches the fundamental concepts and models of application development including the basic concepts of program design, data structures, programming, problem solving, programming logic, and fundamental design techniques for event-driven programs. Provides hands-on experience with a modern application programming language and development platform. May be offered in a Distance-Learning Format.

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

**CIS 31 Perl Programming in a UNIX Environment**

4 units; 3 hours Lecture, 4 hours Laboratory

Prerequisite: CS 11 or CS 12J or equivalent skills.

Recommended Preparation: Eligibility for MATH 154.

Repeatability: May be taken a total of 1 time.

Introduces Perl programming in a UNIX environment including the Emacs text editor, variables, arrays, lists, functions, and regular expressions. May be offered in a Distance-Learning Format.

**Transfer Credit:** Transfers to CSU; UC.
CIS 32  Introduction to Internet Programming

4 units; 3 hours Lecture, 4 hours Laboratory
Recommended Preparation: DM 60; Eligibility for MATH 154.
Repeatable: May be taken a total of 1 time.
Provides an introduction to Internet-related programming using primarily client-side scripting languages like JavaScript. 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.
Transfer Credit: Transfers to CSU; UC.

CIS 33  Introduction to Programming Database-Driven Websites With PHP

4 units; 3 hours Lecture, 4 hours Laboratory
Hybrid Requisite: Completion of or concurrent enrollment in CS 11 or CS 12J or CS 12GP or CIS 32.
Recommended Preparation: DM 60; Eligibility for MATH 154.
Repeatable: May be taken a total of 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.
Transfer Credit: Transfers to CSU.

CIS 34  Mobile Applications - iOS and Android

4 units; 3 hours Lecture, 4 hours Laboratory
Prerequisite: CS 11 or CS 12J or CS 12GP and MATH 152 or equivalent skills.
Repeatable: May be taken a total of 1 time.
Provides an overview of mobile devices and instruction for building mobile applications, including Swift for iOS and Java for Android. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC.

CIS 35  Mobile Game Development

4 units; 3 hours Lecture, and 4 hours Laboratory
Prerequisite: CS 11 or CS 12J or CS 12GP and MATH 152 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 or ESL 100 and READ 100.
Repeatable: May be taken a total of 1 time.
Provides an overview of mobile devices and instruction for building mobile games. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC.

CIS 46  CCNA Security

4 units; 4 hours Lecture, 1 hour Laboratory
Prerequisite: CIS 82 and CIS 83 or equivalent skills.
Recommended Preparation: Eligibility for MATH 154.
Repeatable: May be taken a total of 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 54  Introduction to Database Management Systems

4 units; 4 hours Lecture, 1 hour Laboratory
Recommended Preparation: CIS 90.
Repeatable: May be taken a total of 1 time.
Teaches the core concepts in data management centered on modeling organizational information requirements, normalization techniques, and implementation using Structured Query Language (SQL) with an industry recognized relational database management system. Includes database administration, data quality, security, programming language interfaces, and the role of data in business. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

CIS 70  Introduction to Cybersecurity: Ethical Hacking

3 units; 3 hours Lecture, 1 hour Laboratory
Prerequisite: CIS 75.
Recommended Preparation: Eligibility for ENGL 100 or ESL 100 and READ 100.
Repeatable: May be taken a total of 1 time.
Introduces the various methodologies for attacking a network. Covers network attack methodologies with the emphasis on student use of network attack techniques and tools, and appropriate defenses and countermeasures. Provides a hands-on practical approach to penetration testing measures and ethical hacking. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.
CIS 77  
**Computer Forensics Fundamentals**
3 units; 3 hours Lecture, 1 hour Laboratory
Prerequisite: CIS 75.
Repeatability: May be taken a total of 1 time.
Introduces the methods used to properly conduct a computer forensics investigation beginning with a discussion of ethics, while mapping to the objectives of the International Association of Computer Investigative Specialists (IACIS) certification. Introduces computer forensics as a profession; the computer investigation process; understanding operating systems, boot processes and disk structures; data acquisition and analysis; technical writing; and familiar computer forensics tools. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

CIS 81  
**Computer Network Fundamentals**
4 units; 4 hours Lecture, 1 hour Laboratory
Hybrid Requisite: Completion of or concurrent enrollment in CIS 71 or equivalent skills.
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 1 time.
Covers the architecture, structure, functions, components, and models of the Internet and other computer networks. Introduces the principles and structure of IP (Internet Protocol) addressing and the fundamentals of Ethernet concepts, media, and operations to provide a foundation for further study of computer networks. Uses the OSI (Open Systems Interconnection), and TCP (Transmission Control Protocol) layered models to examine the nature and roles of protocols and services at the application, network, data link, and physical layers. Preparation for the CompTIA Network+ certification exam. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

CIS 82  
**Routing and Switching Essentials**
4 units; 4 hours Lecture, 1 hour Laboratory
Prerequisite: CIS 81.
Repeatability: May be taken a total of 1 time.
Describes the architecture, components, and operations of routers and switches for small networks. Teaches configuration of a router and a switch for basic functionality. Includes configuration and troubleshooting of routers and switches and resolving common issues with single-area and multi-area OSPF, virtual LANs, and inter-VLAN routing in both IPv4 and IPv6 networks. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

CIS 83  
**Switched Networks and Connecting Networks**
4 units; 4 hours Lecture, 1 hour Laboratory
Prerequisite: CIS 81.
Repeatability: May be taken a total of 1 time.
Covers intermediate features of networks including switching and routing technologies, VLANs, VTP, STP, EtherChannel, network device security, troubleshooting, and WAN technologies. Provides hands-on experience using Cisco routers and switches. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

CIS 89  
**Introduction to UNIX/Linux**
3 units; 3 hours Lecture, 1 hour Laboratory
Recommended Preparation: CIS 71 or equivalent skills.
Repeatability: May be taken a total of 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 preparing for industry certification. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC.

CIS 88  
**UNIX/Linux Shell Programming**
4 units; 4 hours Lecture, 1 hour Laboratory
Prerequisite: CIS 82.
Provides 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; UC.

CIS 103  
**Technical Support as a Profession**
4 units; 4 hours Lecture, 1 hour Laboratory
Prerequisite: CIS 71 or equivalent skills.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

CIS 116  
**IPv6 Fundamentals**
3 units; 2 hours Lecture, 3 hours Laboratory
Prerequisite: CIS 81.
Recommended Preparation: CIS 82.
Repeatability: May be taken a total of 1 time.
Introduces IPv6 addressing and address types, dynamic IPv6 address assignment using SLAAC and DHCPv6, ICMPv6 Neighbor Discovery, routing IPv6, and securing an IPv6 network. Covers network integration of IPv6 with IPv4 to transition to IPv6. May be offered in a Distance-Learning Format.
Transfer Credit: Non-transferable.

CIS 140NA  
**Network Analysis using Wireshark**
3 units; 3 hours Lecture, 1 hour Laboratory
Prerequisite: CIS 82 or CIS 83.
Repeatability: May be taken a total of 1 time.
Teaches practical network management skills using the Wireshark network analyzer. Provides a logical troubleshooting approach to capturing and analyzing data frames. Teaches to effectively troubleshoot, maintain, optimize, and monitor network traffic. May be offered in a Distance-Learning Format.
Transfer Credit: Non-transferable.
CIS 140SM  Information Storage Management
3 units; 3 hours Lecture, 1 hour Laboratory
Prerequisite: CIS 81.
Repeatability: May be taken a total of 1 time.
Covers basic principles of information storage and management. Includes important segments of information storage technology such as storing, managing, networking, accessing, protecting, securing, sharing, and optimizing information. May be offered in a Distance-Learning Format.
Transfer Credit: Non-transferable.

CIS 160A-Z  Special Topics in Computer and Information Systems
0.5 – 4 units; 0.5 – 4 hours Lecture or 1.5 – 12 hours Laboratory
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

CIS 174  Virtualization Infrastructure (VMware ICM)
3 units; 3 hours Lecture, 1 hour Laboratory
Prerequisite: CIS 81.
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 1 time.
Teaches installation, configuration, and management of virtual infrastructure. Covers virtualization of hardware, computing systems, and applications. Uses VMware Install, Configure, Manage curriculum. May be offered in a Distance-Learning Format.
Transfer Credit: Non-transferable.

CIS 185  Advanced Routing—Cisco CCNP ROUTE
3 units; 3 hours Lecture, 1 hour Laboratory
Prerequisite: CIS 82 or equivalent skills.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

CIS 187  Implementing IP Switching—Cisco CCNP SWITCH
3 units; 3 hours Lecture, 1 hour Laboratory
Prerequisite: CIS 83 or passing the CCNA exam or equivalent skills.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

CIS 188  Maintaining and Troubleshooting IP Networks—CCNP TSHOOT
3 units; 3 hours Lecture, 1 hour Laboratory
Prerequisite: CIS 185 and CIS 187.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

CIS 191AB  UNIX/Linux Installation, Configuration and Administration
4 units; 4 hours Lecture, 1 hour Laboratory
Prerequisite: CIS 90 or equivalent skills.
Repeatability: May be taken a total of 1 time.
Introduces skills required to administer UNIX/Linux systems. Skills include installing and configuring a popular distribution, such as Red-Hat 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 use of both graphical and command line user interfaces. Skills 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.
Transfer Credit: Non-transferable.

CIS 192AB  UNIX/Linux Network Administration
4 units; 4 hours Lecture, 1 hour Laboratory
Prerequisite: CIS 81 and CIS 90 or equivalent skills.
Recommended Preparation: CIS 191AB.
Repeatability: May be taken a total of 1 time.
Teaches building and monitoring of network infrastructures, and the installation, configuration, and protection services on Linux TCP/IP networks. Configure ARP caches, subnets, IP addresses, subnets to establish a variety of network topologies. Teaches various protocols and network utilities for troubleshooting and securing networks. Topics include the TCP/IP model, DHCP, DNS, NFS, SAMBA, FTP, HTTP, firewalls, and various WAN technologies such as PPP and Virtual Private Networks. Readies students for Linux network administration through preparation for industry certification. May be offered in a Distance-Learning Format.
Transfer Credit: Non-transferable.
**CIS 194  Microsoft Windows Client Administration**  
3 units; 3 hours Lecture, 1 hour Laboratory  
Prerequisite: CIS 71  
Repeatability: May be taken a total of 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.  
*Transfer Credit: Non-transferable.*

**CIS 195  Microsoft Windows Server Administration**  
4 units; 4 hours Lecture, 1 hour Laboratory  
Recommended Preparation: CIS 71 or CIS 194 (may be taken concurrently) or equivalent skills.  
Repeatability: May be taken a total of 1 time.  
Teaches configuration and administration of the Microsoft Windows server operating system. Builds on the features of the client operating system by adding the configuration and administration of the following services: standalone file sharing, distributed file system, Active Directory and Group Policy. Includes joining a standalone server to a domain and promoting a member server to a domain controller. Develops troubleshooting and problem solving skills required of system administrators. Helps prepare students for exams in the Microsoft certification tracks. May be offered in a Distance-Learning Format.  
*Transfer Credit: Non-transferable.*

**CIS 196  Microsoft Windows Server Advanced Configuration**  
4 units; 4 hours Lecture, 1 hour Laboratory  
Prerequisite: CIS 195 or equivalent skills.  
Repeatability: May be taken a total of 1 time.  
Teaches implementation and management of 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.  
*Transfer Credit: Non-transferable.*

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**COMPUTER SCIENCE**  
**Natural and Applied Sciences Division**  
Jamie Alonzo, Division Dean  
Division Office, Room 701  
Steve Hodges, Program Contact, (831) 479-6494  
Aptos Counseling: (831) 479-6274 for appointment  
Watsonville Counseling: (831) 786-4734  
Call (831) 479-6328 for more information  
http://www.cabrillo.edu/programs

**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 programs, 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 professional conduct by meeting strict project deadlines, participating in self-managed teams, and adopting classroom behavioral norms. (Communication, Professional Development)
3. Demonstrate the capacity to use computer software to communicate and interact with computer hardware. (Critical Thinking, Communication, Professional Development)
4. Demonstrate information literacy individually, and as a team member (proper citations, documentation, ethical practices). (Critical Thinking, Communication, Professional Development, Global Awareness)

**Model Program for Computer Science**

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. This degree may be completed as a transferable Associate in Science degree with the addition of university admission requirements and increased general education requirements.

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.
The following core courses are required for transfer for most computer science majors and transfer universities.

**Computer Science Majors**

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
PHYS 4C  
*Physics for Scientists and Engineers III .................... 5
or
BIO 9A  
Molecular, Cellular, and Animal Biology .................... 5
and
BIO 9B  
Ecology, Evolution, and Plant Biology ....................... 5

**Computer Engineering Majors**

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

**Learning Outcomes:**

1. Demonstrate software development skills implemented in the C++ programming language. (Critical Thinking, Professional Development)
2. Demonstrate information literacy individually, and as a team member (proper citations, documentation, ethical practices). (Critical Thinking, Communication, Professional Development, Global Awareness)
3. Demonstrate professional conduct by meeting strict project deadlines, participating in self-managed teams, and adopting classroom behavioral norms. (Communication, Professional Development)
Required Courses

CS 1  Introduction to Computers and Computer Technology ......................... 3
and
CS 1L  Technology Tools ................................................................. 2
CS 12GP  Introduction to Programming Using Games and Simulations ......................... 4
or
CS 12J  Introduction to Programming Concepts and Methodology, Java ......................... 4
CS 20J  Java Programming ................................................................. 4
MATH 4  Precalculus Algebra and Trigonometry ......................................... 5
or
MATH 2  Precalculus Algebra ................................................................. 4
and
MATH 3  Precalculus Trigonometry ................................................................. 3
COMM 2  Group Discussion ................................................................. 3

Total Units 24 – 26

Java Programming Certificate of Achievement

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, digital media, computer networking, bioinformatics, and engineering.

Learning Outcomes:
1. Demonstrate software development skills implemented in the Java programming language. (Critical Thinking, Professional Development)
2. Demonstrate information literacy individually, and as a team member (proper citations, documentation, ethical practices). (Critical Thinking, Communication, Professional Development, Global Awareness)
3. Demonstrate professional conduct by meeting strict project deadlines, participating in self-managed teams, and adopting classroom behavioral norms. (Communication, Professional Development)

Required Courses

CS 1  Introduction to Computers and Computer Technology ......................... 3
and
CS 1L  Technology Tools ................................................................. 2
CS 12GP  Introduction to Programming Using Games and Simulations ......................... 4
or
CS 12J  Introduction to Programming Concepts and Methodology, Java ......................... 4
CS 20J  Java Programming ................................................................. 4
MATH 4  Precalculus Algebra and Trigonometry ......................................... 5
or
MATH 2  Precalculus Algebra ................................................................. 4
and
MATH 3  Precalculus Trigonometry ................................................................. 3
COMM 2  Group Discussion ................................................................. 3

Total Units 24 – 26

Programming Certificate of Achievement

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.

Learning Outcome:
1. Demonstrate software development skills implemented in the C++ or Java programming language. (Critical Thinking, Professional Development)

Required Courses

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
CS 24  **Elementary Computer Organization ................................................. 4
Take 2 of the following CIS courses:  

CIS 31  Perl Programming in a UNIX Environment ......................................... 4
CIS 32  Introduction to Internet Programming ................................................. 4
CIS 34  Mobile Platforms-iPhone and Android ................................................. 4
CIS 98  UNIX/Linux Shell Programming ....................................................... 4
and
MATH 5A  Analytic Geometry and Calculus I ................................................. 5
COMM 2  Group Discussion ................................................................. 3
or
COMM 10  Communication Process ................................................................. 3
ENGL 1A/1AH/1AMC/1AMCH ................................................................. 3

Total Units 35
*spring only; **fall only

Web Programming Fundamentals Certificate of Achievement

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.

Learning Outcome:
1. Demonstrate software development skills implementing the following programming and Internet scripting language: Java, Perl, JavaScript, and PHP. (Critical Thinking, Professional Development)
Required Courses

**Game Programming Skills Certificate**
Prepares the student to program at an intermediate level with an emphasis on video game programming techniques.

**Learning Outcomes:**
1. Demonstrate software game development skills implemented in the Java programming language. (Critical Thinking, Professional Development)
2. Demonstrate information literacy individually, and as a team member (proper citations, documentation, ethical practices). (Critical Thinking, Communication, Professional Development, Global Awareness)
3. Demonstrate professional conduct by meeting strict project deadlines, participating in self-managed teams, and adopting classroom behavioral norms. (Communication, Professional Development)

**Required Courses**
- CS 12GP Introduction to Programming Using Games and Simulations ........................................... 4
- or
- CS 12J Introduction to Programming Concepts and Methodology, Java ........................................... 4
- or
- CS 20J Java Programming ........................................... 4
- or
- CIS 31 Perl Programming in a UNIX Environment .... 4
- or
- CIS 32 Introduction to Internet Programming .......... 4
- or
- CIS 33 Introduction to Programming Database-Driven Websites with PHP ........................................... 4
- or
- MATH 154 Elementary Algebra ........................................... 5
- or
- MATH 152 Intermediate Algebra ........................................... 5
- or
- MATH 4 Precalculus Algebra and Trigonometry .......... 5
- or
- MATH 2 Precalculus Algebra ........................................... 4
- and
- MATH 3 Precalculus Trigonometry ......................... 3
- or
- COMM 10 Communication Process ......................... 3
- or
- ENGL 1A/1AH/1AMC/1AMCH ........................................... 3

**Total Units** 27 - 29

**Mobile Applications Skills Certificate**
Program Description:
Prepares the student to program at an intermediate level with an emphasis on developing iOS and Android mobile applications and games.

**Learning Outcomes:**
1. Demonstrate Android application development skills using Java. (Communication, Critical Thinking, Global Awareness, Personal Responsibility and Professional Development)
2. Demonstrate iOS application development skills using Swift. (Communication, Critical Thinking, Global Awareness, Personal Responsibility and Professional Development)
3. Demonstrate Android and iOS game development skills. (Communication, Critical Thinking, Global Awareness, Personal Responsibility and Professional Development)

**Required Courses**
- CS 12GP Introduction to Programming Using Games and Simulations ........................................... 4
- or
- CS 12J Introduction to Programming Concepts and Methodology, Java ........................................... 4
- or
- CS 19 C++ Programming ........................................... 4
- or
- CS 20J Java Programming ........................................... 4
- or
- CIS 34 Mobile Platforms-iPhone and Android .......... 4
- or
- CIS 35 Mobile Game Development ......................... 4

**Total Units** 16

**Web Programming Fundamentals Skills Certificate**
Prepares the student to create interactive and dynamic web pages using client-side and server-side programming languages.

**Learning Outcomes:**
1. Demonstrate information literacy individually, and as a team member (proper citations, documentation, ethical practices). (Critical Thinking, Communication, Professional Development, Global Awareness)
2. Demonstrate professional conduct by meeting strict project deadlines, participating in self-managed teams, and adopting classroom behavioral norms. (Communication, Professional Development)

**Required Courses**
- CS 12J Introduction to Programming Concepts and Methodology, Java ........................................... 4
- or
- CS 20J Java Programming ........................................... 4
- or
- CIS 32 Introduction to Internet Programming .......... 4
- or
- CIS 33 Introduction to Programming Database-Driven Websites with PHP ........................................... 4
- or
- CIS 34 Mobile Platforms-iPhone and Android .......... 4

**Total Units** 16
**Computer Science Courses**

**CS 1**  
**Introduction to Computers and Computer Technology**
3 units; 3 hours Lecture, 1 hour Laboratory  
Eligibility for MATH 154.  
Repeatability: May be taken a total of 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.

**CS 1L**  
**Technology Tools**
2 units; 2 hours Lecture, 1 hour Laboratory  
Recommended Preparation: CS 1 (may be taken concurrently); Eligibility for MATH 154.  
Repeatability: May be taken a total of 1 time.  
Covers the fundamentals of college-level information literacy, computational logic, and computer proficiency. Topics include the online research process, essential skills in using computer operating systems, word processing, spreadsheets, e-mail, image manipulation, and presentation software at a college level. May be offered in a Distance-Learning Format.  
*Transfer Credit:* Transfers to CSU; UC.

**CS 11**  
**Introduction to Programming Concepts and Methodology, C++**
4 units; 3 hours Lecture, 4 hours Laboratory  
Prerequisite: MATH 152.  
Recommended Preparation: CS 1.  
Repeatability: May be taken a total of 1 time.  
Presents an introduction to computer programming using the C++ programming language beginning with basic principles and progressing to object-oriented programs. Includes: algorithms, data types, declarations, expressions, selection, repetition, functions, recursion, libraries, arrays, classes, objects, files and streams. Prepares students for CS 19 or CS 20J. May be offered in a Distance-Learning Format.  
*Transfer Credit:* Transfers to CSU; UC.  
*C-ID:* COMP 112

**CS 11M**  
**Introduction to C/C++ Programming Using Microcontrollers**
4 units; 3 hours Lecture, 4 hours Laboratory  
Prerequisite: MATH 4 or MATH 2 and MATH 3.  
Recommended Preparation: CS 1.  
Repeatability: May be taken a total of 1 time.  
Presents an introduction to computer programming concepts and methodologies in C/C++ using microcontrollers to program computer circuits and hardware. Covers a microcontroller such as the Arduino, Beaglebone, and Raspberry Pi single-board computers and circuits like LED displays and servo motors. Teaches algorithms, data types, declarations, expressions, selection, repetition, methods, recursion, libraries, arrays, classes, objects, hardware interfaces, and files and streams. May be offered in a Distance-Learning Format.  
*Transfer Credit:* Transfers to CSU; UC.  
*C-ID:* ENGR 120

**CS 12GP**  
**Introduction to Programming Using Games and Simulations**
4 units; 3 hours Lecture, 4 hours Laboratory  
Prerequisite: MATH 154.  
Repeatability: May be taken a total of 1 time.  
Presents an introduction to computer programming concepts and methodologies by developing games and simulations in the Java programming language. Topics include: algorithms, data types, declarations, expressions, selection, repetition, methods, recursion, libraries, arrays, classes, objects, 2D graphics, animation, sound, files and streams. Prepares students for CS 19 or CS 20J. May be offered in a Distance-Learning Format.  
*Transfer Credit:* Transfers to CSU; UC.

**CS 12J**  
**Introduction to Programming Concepts and Methodology, Java**
4 units; 4 hours Lecture, 1 hour Laboratory  
Prerequisite: MATH 152.  
Recommended Preparation: CS 1.  
Repeatability: May be taken a total of 1 time.  
Presents an introduction to computer programming using the Java programming language beginning with basic principles and progressing to object-oriented programs and visual programming. Includes: algorithms, data types, declarations, expressions, selection, repetition, methods, recursion, libraries, arrays, classes, objects, components, events, files and streams. May be offered in a Distance-Learning Format.  
*Transfer Credit:* Transfers to CSU; UC.  
*C-ID:* COMP 112
**CS 19  C++ Programming**  
4 units; 3 hours Lecture, 4 hours Laboratory  
Prerequisite: MATH 4 or MATH 2 and MATH 3.  
Recommended Preparation: CS 11 or CS 11M or CS 12J or equivalent skills; Previous programming experience strongly recommended.  
Repeatability: May be taken a total of 1 time.  
Prepares students for CS 21 and CS 23. May be offered in a Distance-Learning Format.  
Transfer Credit: Transfers to CSU; UC. C-ID: CS 19 + CS 20J = C-ID COMP 122; CS 11M + CS 19 = C-ID ENGR 120

**CS 20J  Java Programming**  
4 units; 3 hours Lecture, 4 hours Laboratory  
Prerequisite: MATH 4 or MATH 2 and MATH 3.  
Recommended Preparation: CS 11 or CS 11M or CS 12J or CS 12GP or equivalent skills.  
Repeatability: May be taken a total of 1 time.  
Prepares students for CS 21 and CS 24. May be offered in a Distance-Learning Format.  
Transfer Credit: Transfers to CSU; UC. C-ID: CS 19 + CS 20J = C-ID COMP 122.

**CS 21  Introduction to Data Structures and Algorithms**  
4 units; 3 hours Lecture, 4 hours Laboratory  
Prerequisite: CS 19 or CS 20J or equivalent skills and MATH 5A.  
Repeatability: May be taken a total of 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 11M or CS 12GP or CS 12J or equivalent skills; MATH 5A or equivalent skills.  
Repeatability: May be taken a total of 1 time.  
Prepares students for CS 21 or CS 20J or equivalent skills.  
Transfer Credit: Transfers to CSU; UC. C-ID: COMP 152

**CS 24  Elementary Computer Organization**  
4 units; 3 hours Lecture, 4 hours Laboratory  
Prerequisite: CS 19 or CS 20J and MATH 5A.  
Repeatability: May be taken a total of 1 time.  
Introduces organization of computer systems, machine level programming, and systems software. Includes processor organization, introduction to operating systems and assembly language programming on microprocessors. Offered fall only. 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

Jamie Alonzo, Division Dean  
Division Office, Room 701  
Chuck Mornard, Department Chair, (831) 479-6235  
Aptos Counseling: (831) 479-6274 for appointment  
Watsonville Counseling: (831) 786-4734  
Call (831) 479-6328 for more information  
http://www.cabrillo.edu/programs

### Construction Management A.S. Degree

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.

### Learning Outcomes

1. Plan, manage, and construct all phases of residential, commercial, heavy civil, and industrial buildings.

### A.S. General Education 21 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>CEM 151</td>
<td>Construction Fundamentals: Principles and Practices</td>
<td>3</td>
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<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>
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<tr>
<td>CEM 155</td>
<td>Blueprint Reading</td>
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<tr>
<td>CEM 157</td>
<td>Construction Law</td>
<td>3</td>
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<tr>
<td>CEM 159</td>
<td>Construction Planning and Scheduling</td>
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<tr>
<td>CEM 160</td>
<td>Construction Management</td>
<td>3</td>
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<tr>
<td>CEM 161</td>
<td>Construction Business and Related Topics</td>
<td>3</td>
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<tr>
<td>CEM 162</td>
<td>Sustainable Buildings, Home Performance, and the Environment</td>
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### Approved Electives 9 Units

<table>
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<tr>
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<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>CEM 151EL</td>
<td>Electrical Basics for Construction Technology</td>
<td>1</td>
</tr>
<tr>
<td>CEM 151FC</td>
<td>Basic Finish Carpentry</td>
<td>1</td>
</tr>
<tr>
<td>CEM 151PL</td>
<td>Plumbing Basics for Construction Technology</td>
<td>1</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>
<tr>
<td>CEM 162LD</td>
<td>Green Building and LEED</td>
<td>3</td>
</tr>
<tr>
<td>CEM 162PS</td>
<td>Passive Solar Design and Construction</td>
<td>2</td>
</tr>
<tr>
<td>CEM 162SP</td>
<td>Solar Photovoltaic Design and Installation</td>
<td>3</td>
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<tr>
<td>CEM 162ST</td>
<td>Solar Thermal Design and Installation</td>
<td>3</td>
</tr>
<tr>
<td>CEM 163</td>
<td>Fundamentals of Renewable Energy Systems</td>
<td>3</td>
</tr>
<tr>
<td>CEM 164C</td>
<td>Building Fundamentals of the 2013 California Residential Code</td>
<td>3</td>
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<tr>
<td>CEM 165E</td>
<td>2013 California Energy Code</td>
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<tr>
<td>CEM 166A</td>
<td>Fundamentals of the 2015 International Building Code</td>
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### Required Courses 30 Units

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<td>Construction Management</td>
<td>3</td>
</tr>
<tr>
<td>CEM 161</td>
<td>Construction Business and Related Topics</td>
<td>3</td>
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<tr>
<td>CEM 162</td>
<td>Sustainable Buildings, Home Performance, and the Environment</td>
<td>3</td>
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</tbody>
</table>

### Total Units 60

### Construction Management Certificate of Achievement

**Learning Outcomes**

1. Plan, manage, and construct all phases of residential, commercial, heavy civil and industrial buildings.

### Required Courses

<table>
<thead>
<tr>
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<td>Building Science for Construction Technology</td>
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<td>CEM 162HR</td>
<td>Home Energy Rating System</td>
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<td>Solar Photovoltaic Design and Installation</td>
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</tr>
<tr>
<td>CEM 163</td>
<td>Fundamentals of Renewable Energy Systems</td>
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<tr>
<td>CEM 164C</td>
<td>Building Fundamentals of the 2013 California Residential Code</td>
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<td>CEM 165E</td>
<td>2013 California Energy Code</td>
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<tr>
<td>CEM 166A</td>
<td>Fundamentals of the 2015 International Building Code</td>
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</table>

### May include three units from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
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</thead>
<tbody>
<tr>
<td>ETECH 24</td>
<td>Introduction to AutoCAD</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 60</td>
<td>Architecture/Green Design: Principles and Practices</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 75</td>
<td>BIM and Sustainable Design Strategies</td>
<td>3</td>
</tr>
</tbody>
</table>

### Total Units 60
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 164C Fundamentals of the 2013 California Residential Code.......................................3
CEM 166A Fundamentals of the 2015 International Building Code I Structural........................3
CEM 168A Fundamentals of the 2015 Uniform Plumbing Code............................................3
CEM 169A Fundamentals of the 2015 Uniform Mechanical Code..........................................3
CEM 175C 2014 National Electric Code (NEC) Commercial.................................................3
CEM 175R 2014 National Electric Code (NEC) Residential..................................................3

Three units from the following:

ENGL 100 Elements of Writing............................................................................................3
or ESL 100 High Advanced Academic ESL..................................................................4-6
or ENGL 1A/1AH/1AMC/1AMCH.............................................................................3
or CABT 157 Business and Technical Writing.............................................................3

Total Units 34 - 37

Building Inspection and Construction Codes Certificate of Achievement

Learning Outcomes

1. Inspect and analyze a building for compliance with current building standards and sustainability sciences.

Core Courses (31 units) 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 164C Fundamentals of the 2013 California Residential Code.......................................3
CEM 166A Fundamentals of the 2015 International Building Code I Structural........................3
CEM 168A Fundamentals of the 2015 Uniform Plumbing Code............................................3
CEM 169A Fundamentals of the 2015 Uniform Mechanical Code..........................................3
CEM 175C 2014 National Electric Code (NEC) Commercial.................................................3
CEM 175R 2014 National Electric Code (NEC) Residential..................................................3

Three units from the following:

ENGL 100 Elements of Writing............................................................................................3
or ESL 100 High Advanced Academic ESL..................................................................4-6
or ENGL 1A/1AH/1AMC/1AMCH.............................................................................3
or CABT 157 Business and Technical Writing.............................................................3

Total Units 34 - 37
Energy Management A.S. Degree

The Energy Management program provides preparation for students to work in the construction and energy management industry. Preparation includes construction fundamentals with an emphasis on sustainability and energy management as they relate to building technology, the application of building science, and solar-derived energy. The program employs an integrated approach to construction project planning and execution as well as preparation for state and national certifications.

Learning Outcomes

1. Analyze contemporary renewable alternative energy systems and techniques as it applies to construction technology and resources. (Global Awareness, Critical Thinking, Professional Development)
2. Compare and contrast various renewable energy technologies and their relationship with energy conservation, scarce resources and the environment. (Global Awareness, Critical Thinking, Professional Development)
3. Critically assess building science as it pertains to safety, health, comfort, energy efficiency, and building durability. (Global Awareness, Critical Thinking, Professional Development)
4. Investigate solar derived active and passive systems and their relationship with energy conservation, scarce resources, and the environment. (Global Awareness, Critical Thinking, Professional Development)

A.S General Education
Core Courses (25 Units)

CEM 151 Construction Fundamentals: Principles and Practices 3
CEM 151L Construction Fundamentals: Principles and Practices Lab 1
CEM 162 Sustainable Buildings, Home Performance, and the Environment 3
CEM 162LD Green Building and LEED 3
CEM 162BS Building Science for Construction Technology 3
CEM 162HR Home Energy Rating System 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
CEM 165E 2013 California Energy Code 3

Approved Electives
CEM Management Courses (6 Units)

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 Code Courses (3 Units)

CEM 164C Fundamentals of the 2013 California Residential Code 3
CEM 166A Fundamentals of the 2015 International Building Code I Structural 3
CEM 168A Fundamentals of the 2015 Uniform Plumbing Code 3
CEM 169A Fundamentals of the 2015 Uniform Mechanical Code 3

CEM 175C 2014 National Electric Code (NEC) Residential 3

CEM Skills Courses (3 Units)

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

ETECH Courses (3 Units)

ETECH 24 Introduction to AutoCAD 3
ETECH 60 Architecture/Green Design: Principles and Practices 3
ETECH 61 Architecture/Green Design: Planning and Construction 3
ETECH 62 Architecture/Green Design: Implementation using AutoCAD 3

Any of the following additional courses may be counted in the 15 units.

CEM 163 Fundamentals of Renewable Energy Systems 3
DMCP 401 Foundation Course 0
CEM 199C Career Work Experience Education 3

Total Units 60

Energy Management Certificate of Achievement

Learning Outcomes

1. Analyze contemporary renewable alternative energy systems and techniques as it applies to construction technology and resources. (Global Awareness, Critical Thinking, Professional Development)
2. Critically assess various renewable energy technologies and their relationship with energy conservation, scarce resources and the environment. (Global Awareness, Critical Thinking, Professional Development)
4. Investigate solar derived active and passive systems and their relationship with energy conservation, scarce resources, and the environment. (Global Awareness, Critical Thinking, Professional Development)

Core Courses (25 Units)

CEM 151 Construction Fundamentals: Principles and Practices 3
CEM 151L Construction Fundamentals: Principles and Practices Lab 1
CEM 162 Sustainable Buildings, Home Performance, and the Environment 3
CEM 162LD Green Building and LEED 3
CEM 162BS Building Science for Construction Technology 3
CEM 162HR Home Energy Rating System 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
CEM 165E 2013 California Energy Code 3

One of the following:

ENGL 100 Elements of Writing 3
or
ESL 100 High Advanced Academic ESL 4-6
or
ENGL 1A/1AH/1AMC/1AMCH 3
or
CABT 157 Business and Technical Writing 3

Total Units 28-31
Construction Basics Skills Certificate

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>
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<tr>
<td>CEM 151L</td>
<td>Construction Fundamentals: Principles and Practices Lab</td>
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<td>CEM 151FC</td>
<td>Electrical Basics for Construction Technology</td>
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<td>CEM 151PL</td>
<td>Plumbing for Construction Technology</td>
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<tr>
<td>CEM 177</td>
<td>Fundamentals of Residential Framing</td>
<td>3</td>
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</tbody>
</table>

Total Units: 10

Basic Energy Management Skills Certificate

Learning Outcomes:
1. Analyze renewable alternative energy systems, techniques, and rating systems as they apply to building construction technology.
2. Investigate the various renewable energy technologies and their relationship with energy conservation, scarce resources, and the environment.

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>CEM 151</td>
<td>Construction Fundamentals: Principles and Practices</td>
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<tr>
<td>CEM 151L</td>
<td>Construction Fundamentals: Principles and Practices Lab</td>
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<tr>
<td>CEM 162</td>
<td>Sustainable Buildings, Home Performance, and the Environment</td>
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<tr>
<td>CEM 162LD</td>
<td>Green Building and LEED</td>
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</tr>
<tr>
<td>CEM 162BS</td>
<td>Building Science for Construction Technology</td>
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</tr>
</tbody>
</table>

Total Units: 13

Building Performance Energy Management Skills Certificate

Learning Outcomes:
1. Analyze the theory of building science for construction technology.

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
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<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></td>
</tr>
<tr>
<td>CEM 162LD</td>
<td>Green Building and LEED</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units: 14

Construction Business Management Skills Certificate

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 Project Management Skills Certificate

Learning Outcomes:
1. Manage construction projects utilizing techniques and methodologies of estimating, scheduling, construction management, 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 155</td>
<td>Blueprint Reading</td>
<td>3</td>
</tr>
<tr>
<td>CEM 159</td>
<td>Construction Planning and Scheduling</td>
<td>3</td>
</tr>
<tr>
<td>CEM 160</td>
<td>Construction Management</td>
<td>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 Plumbing/Mechanical Inspection and Codes Skills Certificate

Learning Outcomes:
1. Demonstrate understanding of the basic plumbing, mechanical codes and building standards, and sustainability sciences in residential and commercial structures.

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEM 151</td>
<td>Construction Fundamentals: Principles and Practices</td>
</tr>
<tr>
<td>CEM 151L</td>
<td>Construction Fundamentals: Principles and Practices Lab</td>
</tr>
<tr>
<td>CEM 155</td>
<td>Blueprint Reading</td>
</tr>
<tr>
<td>CEM 162</td>
<td>Sustainable Buildings, Home Performance, and the Environment</td>
</tr>
<tr>
<td>CEM 168A</td>
<td>Fundamentals of the 2015 Uniform Plumbing Code</td>
</tr>
<tr>
<td>CEM 169A</td>
<td>Fundamentals of the 2015 Uniform Mechanical Code</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td>16</td>
</tr>
</tbody>
</table>

Solar Derived Energy Management Skills Certificate

Learning Outcomes:
1. Critically assess solar derived system applications, site evaluation, design analysis, codes and materials, and methods of installation.
2. Investigate solar derived active and passive systems and their relationship with energy conservation, scarce resources, and the environment.
3. Utilize theories of construction to construct the basic aspects of residential construction (foundations, framing, plumbing, electrical and finish).

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEM 151</td>
<td>Construction Fundamentals: Principles and Practices</td>
</tr>
<tr>
<td>CEM 151L</td>
<td>Construction Fundamentals: Principles and Practices Lab</td>
</tr>
<tr>
<td>CEM 162PS</td>
<td>Passive Solar Design and Construction</td>
</tr>
<tr>
<td>CEM 162SP</td>
<td>Solar Photovoltaic Design and Installation</td>
</tr>
<tr>
<td>CEM 162ST</td>
<td>Solar Thermal Design and Installation</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td>12</td>
</tr>
</tbody>
</table>

Construction Career Path Skills Certificate

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.

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEM 151</td>
<td>Construction Fundamentals: Principles and Practices</td>
</tr>
<tr>
<td>CEM 151L</td>
<td>Construction Fundamentals: Principles and Practices Lab</td>
</tr>
<tr>
<td>CEM 155L</td>
<td>Construction Fundamentals: Principles and Practices Lab</td>
</tr>
<tr>
<td>CEM 155EL</td>
<td>Electrical Basics for Construction Technology</td>
</tr>
<tr>
<td>CEM 151PL</td>
<td>Plumbing for Construction Technology</td>
</tr>
<tr>
<td>CEM 155</td>
<td>Blueprint Reading</td>
</tr>
<tr>
<td>CEM 177</td>
<td>Fundamentals of Residential Framing</td>
</tr>
<tr>
<td>or CEM 178A</td>
<td>Residential Construction Skills 1: “Front End”</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td>12</td>
</tr>
</tbody>
</table>

Construction and Energy Management Courses

| CEM 151          | Construction Fundamentals: Principles and Practices | 3 |
| **Total Units**  | 8 |

Construction Electrical Inspection and Codes Skills Certificate

Learning Outcomes
1. Demonstrate understanding of the basic electrical codes and building standards in residential and commercial structures.

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEM 151</td>
<td>Construction Fundamentals: Principles and Practices</td>
</tr>
<tr>
<td>CEM 151L</td>
<td>Construction Fundamentals: Principles and Practices Lab</td>
</tr>
<tr>
<td>CEM 155</td>
<td>Blueprint Reading</td>
</tr>
<tr>
<td>CEM 175C</td>
<td>2014 National Electrical Code (NEC)</td>
</tr>
<tr>
<td>CEM 175R</td>
<td>2014 National Electrical Code (NEC)</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td>13</td>
</tr>
</tbody>
</table>

Construction Trade Skills Certificate

Learning Outcomes
1. Utilize theories of construction to construct the basic aspects of residential construction (foundations, framing, plumbing, electrical and finish).

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEM 151</td>
<td>Construction Fundamentals: Principles and Practices</td>
</tr>
<tr>
<td>CEM 151L</td>
<td>Construction Fundamentals: Principles and Practices Lab</td>
</tr>
<tr>
<td>CEM 151EL</td>
<td>Electrical Basics for Construction Technology</td>
</tr>
<tr>
<td>CEM 151PL</td>
<td>Plumbing for Construction Technology</td>
</tr>
<tr>
<td>CEM 155</td>
<td>Blueprint Reading</td>
</tr>
<tr>
<td>CEM 177</td>
<td>Fundamentals of Residential Framing</td>
</tr>
<tr>
<td>or CEM 178A</td>
<td>Residential Construction Skills 1: “Front End”</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td>12</td>
</tr>
</tbody>
</table>

Transfer Credit: Non-transferable.
CEM 151L  Construction Fundamentals: Principles and Practices Lab
1 unit; 3 hours Laboratory
Co-requisite: CEM 151.
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

CEM 151EL  Electrical Basics for Construction Technology
1 unit; 1 hour Lecture
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 1 time.
Prepares students theoretically and practically in electrical basics for construction technology. Topics include electrical terminology, codes and standards, current and voltage, circuits, lighting, receptacles, conductors and conduits, grounding and bonding, and appliances.
Transfer Credit: Non-transferable.

CEM 151FC  Basic Finish Carpentry
1 unit; 1 hour Lecture, 1 hour Laboratory
Repeatability: May be taken a total of 1 time.
Prepares students theoretically and practically for the basic finish carpentry skills necessary for residential construction. Topics include the installation and finish carpentry techniques and skills required for windows, doors, cabinets, floorings, moldings, and other interior and exterior finishes and projects.
Transfer Credit: Non-transferable.

CEM 151PL  Plumbing Basics for Construction Technology
1 unit; 1 hour Lecture
Repeatability: May be taken a total of 1 time.
Prepares students theoretically and practically in plumbing basics for construction technology. Topics include plumbing terminology, codes and standards, piping, fittings, fixtures, installation techniques and practices, and an introduction to radiant and solar thermal systems.
Transfer Credit: Non-transferable.

CEM 154  Construction Estimating
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 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, cost indexes, and computer estimating techniques to prepare, organize, and track costs.
Transfer Credit: Non-transferable.

CEM 155  Blueprint Reading
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

CEM 157  Construction Law
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

CEM 159  Construction Planning and Scheduling
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.
CEM 160  Construction Management
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

CEM 161  Construction Business and Related Topics
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

CEM 162  Sustainable Buildings, Home Performance, and the Environment
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 1 time.
Introduces sustainable building resources and applications, LEEDS certification requirements, home performance concepts, California energy codes, green building, and their relationships to the environment and residential construction.
Transfer Credit: Non-transferable.

CEM 162BS  Building Science for Construction Technology
3 units; 3 hours Lecture
Prerequisite: CEM 151 and CEM 151L.
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

CEM 162CE  Introduction to Commercial Energy Efficiency and Audits
2 units; 2 hours Lecture
Prerequisite: CEM 162BS.
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 1 time.
Provides an overview of the energy efficiency and the auditing process for commercial buildings. Topics include energy efficiency and the various levels of audits, defining scope of work, preliminary evaluation of the building attributes, collection and assessment of building system operations data, analysis of data, developing recommendations, preparing a report, and presenting the report.
Transfer Credit: Non-transferable.

CEM 162HR  Home Energy Rating System
1 unit; 1 hour Lecture
Prerequisite: CEM 162BS.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

CEM 162LC  Lighting and Controls for High Performance Buildings
1 unit; 1 hour Lecture
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 1 time.
Prepares students theoretically and practically for energy efficiency lighting and for optimizing building performance through controls, devices, and monitoring equipment. Topics include lighting and building controls, equipment, devices, and instruments used for the operation and monitoring of high performance buildings and their relative systems.
Transfer Credit: Non-transferable.
CEM 162LD  Green Building and LEED
3 units; 3 hours Lecture
Prerequisite: CEM 151 and CEM 151L.
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

CEM 162PS  Passive Solar Design and Construction
2 units; 2 hours Lecture
Prerequisite: CEM 151 and CEM 151L.
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 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. May be offered in a Distance-Learning Format.
Transfer Credit: Non-transferable.

CEM 162SC  Integrated Sustainability in Construction
1 unit; 1 hour Lecture
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 1 time.
Introduces the concepts of integrated project planning, construction, and management as they relate to sustainability for building construction.
Transfer Credit: Non-transferable.

CEM 162SP  Solar Photovoltaic Design and Installation
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

CEM 162ST  Solar Thermal Design and Installation
3 units; 3 hours Lecture
Prerequisite: CEM 151 and CEM 151L.
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

CEM 163  Fundamentals of Renewable Energy Systems
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

CEM 164C  Fundamentals of the 2013 California Residential Code
3 units; 3 hours Lecture
Provides training in the structural building provisions of the 2013 California Residential Code and for those seeking International Code Council Certification. Topics include concrete, masonry, and wood frame construction. Designed for architects, contractors, designers, and inspectors.
Transfer Credit: Non-transferable.

CEM 164R  Building Fundamentals of the International Residential Code
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

CEM 165E  2013 California Energy Code
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 1 time.
Introduces the 2013 California Energy Code (the 2013 Building Energy Efficiency Standards) and requirements for building construction.
Transfer Credit: Non-transferable.
CEM 166A  
Fundamentals of the 2015 International Building Code I
Structural
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 1 time.
Provides training in the structural portions of the 2015 International Building Code, including concrete, masonry, and wood frame construction. Designed for architects, contractors, designers, inspectors, and those seeking International Code Council Certification.
Transfer Credit: Non-transferable.

CEM 167A  
Fundamentals of the 2012 International Building Code II
Non-Structural
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 1 time.
Transfer Credit: Non-transferable.

CEM 168A  
Fundamentals of the 2015 Uniform Plumbing Code
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 1 time.
Provides training in the requirements of the 2015 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 IAPMO Certification.
Transfer Credit: Non-transferable.

CEM 169A  
Fundamentals of the 2015 Uniform Mechanical Code
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 1 time.
Provides training in the requirements of the 2015 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 IAPMO Certification.
Transfer Credit: Non-transferable.

CEM 175C  
2014 National Electrical Code (NEC) Commercial
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 1 time.
Provides training in the selection and installation of various electrical wiring systems as specified by the 2014 National Electrical 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.
Transfer Credit: Non-transferable.

CEM 175R  
2014 National Electrical Code (NEC) Residential
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 1 time.
Provides training in wiring systems as specified by the 2014 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.
Transfer Credit: Non-transferable.

CEM 177  
Fundamentals of Residential Framing
3 units; 2 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

CEM 178A  
Residential Construction Skills 1: “Front End”
3 units; 2 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.
CEM 178B  
**Residential Construction Skills 2: “Finish End”**

3 units; 2 hours Lecture, 3 hours Laboratory  
Recommended Preparation: Eligibility for MATH 154.  
Repeatability: May be taken a total of 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.  
Transfer Credit: Non-transferable.

CEM 190A-Z  
**Special Topics in Construction and Energy Management**

0.5 – 5 units; 0.5 – 5 hours Lecture, 1.5 – 6 hours Laboratory  
Recommended Preparation: Eligibility for MATH 154.  
Repeatability: May be taken a total of 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.  
Transfer Credit: Non-transferable.

**COOPERATIVE WORK EXPERIENCE EDUCATION (CWEE)**

Cooperative Work Experience Education (CWEE) is an academic program in which students earn college credit for what they learn while working at paid jobs or as volunteers. Often, CWEE units will apply to the Associate Degree or certificate and/or can be transferred to 4-year California State Universities as elective credit.  
Students, with the guidance of their work supervisor and CWEE instructor, set their own Learning Objectives, which they fulfill during the semester. Learning Objectives are the educational foundation of the course and define what and how a student will learn on the job during the semester. By developing and achieving Learning Objectives, students are able to demonstrate to their supervisors their ability to learn and grow, and increase the student’s value as an employee.  
Students must work 75 hours (if paid) or 60 hours (if volunteer) over the semester for each unit attempted. Students whose work relates to one of the college’s occupational disciplines can enroll in Occupational Work Experience for 1 to 4 units in one semester (Depending on Department). Students whose work does not relate to one of the Occupational disciplines can enroll in General Work Experience Education up to 4 units each semester. Students do not need to enroll in other courses in order to enroll in CWEE classes. Students must attend a course orientation to enroll for the course.  
More information and an orientation schedule can be found online at https://cabrillo.edu/academics/cwee/ or contact Matthew Weis, Internship and Work Experience Coordinator, at (831) 477-5650, mweis@cabrillo.edu.

**General Work Experience Education – CWEE 99G**

For students who wish to enroll in work experience not aligned with a specific program degree or certificate. Students may enroll in 1 to 4 units in one semester. General Work Experience units are transferable to the CSU system.

**Occupational Work Experience**

For students who wish to enroll for work experience aligned with a specific program degree or certificate. Students may enroll in 1 to 4 units in one semester. College programs that offer Occupational Work Experience as an elective or requirement include:  
Accounting (ACCT), Business (BUS), Computer and Information Systems (CIS), Computer Applications/Business Applications (CABT), Construction Energy Management (CEM), Culinary Arts and Hospitality Management (CAHM), Dental Hygiene (DH), Digital Media (DM), Early Childhood Education (ECE), Education (EDUC), Engineering (ENGR), Engineering Technology (ETECH), Horticulture (HORT), Journalism (JORN), Music (MUS), Nursing (N), Radiologic Technology (RT), Welding (W). Occupational Work Experience units are non-transferable.
COUNSELING AND GUIDANCE
Counseling Department
Margery Regalado Rodriguez, Counseling and Educational Support Services Division Dean
Division Office, Building 100
Anna Zagorska, Counseling Director (831) 479-6274
Aptos Counseling: (831) 479-6274
Watsonville Counseling: (831) 786-4734
Call (831) 479-6274 for more information
http://www.cabrillo.edu/services/counseling/

CG 1  College Success
3 units; 3 hours Lecture
Repeatability: May be taken a total of 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, with limits: CG 1, 51 and 54 combined: maximum credit – 3 units.

CG 51  Planning for Success
1 – 3 units; 1 – 3 hours Lecture
Repeatability: May be taken a total of 1 time.
Introduces the tools necessary to increase academic and life success including college expectations, resources, facilities, requirements, and educational planning. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC, with limits: CG 1, 51 and 54 combined: maximum credit – 3 units.

CG 52  College Study Skills
0.5 – 3 units; 0.5 – 3 hours Lecture
Repeatability: May be taken a total of 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  Careers and Lifestyles
1 – 3 units; 1 – 3 hours Lecture
Repeatability: May be taken a total of 1 time.
Facilitates the selection of a career goal and educational pathway through self-analysis, human development, and occupational exploration; utilizes assessment of human traits and life span development. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC, with limits: CG 1, 51 and 54 combined: maximum credit – 3 units.

CG 65  Leadership Development
2 units; 2 hours Lecture
Repeatability: May be taken a total of 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 – 9 hours Laboratory
Eligibility for MATH 154
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

CG 190AZ  Special Topics in Counseling and Guidance
0.5 – 5 units; 0.5 – 5 hours Lecture or 1.5 – 15 hours Laboratory
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.
**CG 205 Academic Survival Skills**
1 unit; 1 hour Lecture
Repeatability: May be taken a total of 1 time.
Assists students in developing college survival skills to include note-taking, test-taking, time management, and studying effectively.
*Transfer Credit: Non-transferable.*

**CG 280AZ Special Topics in Developmental Studies**
1 unit; 1 hour Lecture or 2 hours Laboratory
Recommended Preparation: Eligibility for Accessibility Support Center Services.
Repeatability: May be taken a total of 1 time.
Present 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.
*Transfer Credit: Non-transferable.*

**CG 286 Transition to College**
2 units; 2 hours Lecture
Repeatability: May be taken a total of 1 time.
Addresses issues, concerns, and resources related to students with mental health conditions as they affect vocational, academic and interpersonal situations occurring in a college environment.
*Transfer Credit: Non-transferable.*

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**CULINARY ARTS AND HOSPITALITY MANAGEMENT**

**Human Arts and Social Sciences Division**

Paul Harvell, Division Dean
Division Office, Room 420
Sue Slater, Department Chair, (831) 477-5205
Aptos Counseling: (831) 479-6274 for appointment
Watsonville Counseling: (831) 786-4734
Call (831) 479-6297 for more information
http://www.cabrillo.edu/programs

**Culinary Arts, Hospitality Management A.S. Degree**

**Program Description**

Cabrillo College’s Culinary Arts and Hospitality Management program provides the student with the basic culinary skills in food preparation and service, a la carte dining, and buffet food productions, as well as food service management training for the industry. Cabrillo College offers basic skills certificates in Cooking, Catering (16 units each), Wine Tasting Room Management, Wine Service (15 units each), World Wines (17 units), and a certificate of achievement in Culinary Arts and Hospitality Management (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.

**Department of Labor Data:**

Total Restaurant Employees: 13 million—one of the largest private-sector employers. The restaurant industry employs an estimated 13 million people, or 9% of the U.S. workforce. The restaurant industry is expected to add 1.8 million jobs over the next decade, with employment reaching 14.8 million by 2019. One-quarter of eating and drinking place firms are owned by women, 15% by Asians, 8% by Hispanics, and 4% by African-Americans. Because we offer many other areas of study at Cabrillo, you can combine majors to reach your individual career goal. For example, you could combine photography and culinary arts and become a food stylist. Study chemistry along with culinary arts and go into food science. If you like to write, combine English or journalism with culinary arts and become a travel and food writer. If you dream of opening your own restaurant, bakery, or catering company, you can study business along with culinary arts.

**Career Opportunities**

Any dish that a trained culinarian creates can be a work of art in both taste and visual appeal. As a business, though, a graduate from Culinary Arts and Hospitality Management means employability. The California Restaurant Association (www.calrest.org) indicates that:

- California eating-and-drinking place sales are projected to rise
- In a recent survey, California’s new restaurants exceed 6,000; more than any other state in the nation for the same surveying period
- In recent years consumers spent more of the money at restaurants than they did at the supermarket
- The typical restaurant owner started the career ladder working as a...
dishwasher, busser, or cook. In fact, more than 9 out of 10 salaried restaurant employees started out as hourly employees.

- The restaurant industry is the largest employer in California, providing over 950,000 jobs. The restaurant industry provides work for almost 7% of those employed in California.

**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

<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>
</tr>
<tr>
<td>CAHM 151B</td>
<td>Advanced Culinary Arts</td>
<td>9</td>
</tr>
<tr>
<td>CAHM 155</td>
<td>Basic Baking and Pastry</td>
<td>3</td>
</tr>
<tr>
<td>CAHM 157L</td>
<td>Catering and Beverage Operation Lab</td>
<td>3</td>
</tr>
<tr>
<td>CAHM 99C</td>
<td>Career Work Experience Education</td>
<td>2</td>
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</table>

### Approved Electives (6 Units) 21 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>NUTR 20</td>
<td>Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>NUTR 22</td>
<td>Nutrition, Health and Wellness</td>
<td>2</td>
</tr>
<tr>
<td>NUTR 120</td>
<td>Nutritional Cooking</td>
<td>3</td>
</tr>
<tr>
<td>CAHM 130</td>
<td>Beer, Sake, and Spirits</td>
<td>2</td>
</tr>
<tr>
<td>CAHM 149</td>
<td>Cake Decorating</td>
<td>1</td>
</tr>
<tr>
<td>CAHM 153</td>
<td>Garde Manger</td>
<td>2</td>
</tr>
<tr>
<td>CAHM 159</td>
<td>Chocolate</td>
<td>1</td>
</tr>
<tr>
<td>CAHM 165</td>
<td>Meat Cutting and Sausage Making</td>
<td>2</td>
</tr>
<tr>
<td>CAHM 167</td>
<td>Cultural and Ethnic Foods</td>
<td>2</td>
</tr>
<tr>
<td>CAHM 168</td>
<td>Advanced Baking and Pastry</td>
<td>3</td>
</tr>
<tr>
<td>CAHM 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>
<td>2</td>
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<tr>
<td>CAHM 174</td>
<td>World Wines</td>
<td>3</td>
</tr>
<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>
</tr>
<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>
<td>2</td>
</tr>
<tr>
<td>CAHM 179</td>
<td>Wines of California</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 151A</td>
<td>Introduction to Accounting: Bookkeeping Concepts</td>
<td>4</td>
</tr>
<tr>
<td>MATH 154</td>
<td>**Elementary Algebra</td>
<td>5</td>
</tr>
</tbody>
</table>

*Or higher level math class.

**Total Units 60**

### Culinary Arts, Hospitality Management Certificate of Achievement

**Learning Outcomes**

1. Demonstrate knowledge of fundamental food preparation theory, sanitation practices, menu design, management theory, and food costing.

2. Produce consistent quality restaurant lunch and dinner dishes, banquet meals, and bakery products in a timely fashion.

3. Demonstrate professionalism as required in the hospitality industry.

#### Core Course (33 units)

<table>
<thead>
<tr>
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<td>CAHM 50B</td>
<td>Introduction to Entree Preparation and Service</td>
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</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>
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<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>
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<td>Catering and Beverage Operation Lab</td>
<td>3</td>
</tr>
<tr>
<td>CAHM 99C</td>
<td>Career Work Experience Education</td>
<td>2</td>
</tr>
</tbody>
</table>

### Other Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 100</td>
<td>Elements of Writing</td>
<td>3</td>
</tr>
<tr>
<td>ESL 100</td>
<td>High Advanced Academic ESL</td>
<td>4-6</td>
</tr>
<tr>
<td>ENGL 1A/1AH/1AMC/1AMCH</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>CABT 157</td>
<td>Business and Technical Writing</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Units 36-39**

### Certificate of Completion in Culinary Arts Kitchen Skills

**Learning Outcomes**

1. Demonstrate and apply basic cooking, knife, and equipment skills, and sanitation procedures as they apply to an entry-level position in a professional kitchen.

#### Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAHM 405A</td>
<td>Basic Knife Skills and Sanitation</td>
<td>8</td>
</tr>
<tr>
<td>CAHM 405B</td>
<td>Basic Kitchen Skills</td>
<td>8</td>
</tr>
</tbody>
</table>

**Total Hours 16 hours**
Culinary Arts–Entry Level Catering Skills Certificate

Learning Outcomes
1. Demonstrate management skills with co-workers and customers.
2. Demonstrate knowledge of fundamental catering theory, sanitation practices, food costing, menu design, and customer relations.
3. Produce and deliver banquet meals in a timely fashion.
4. Demonstrate professionalism as required in the hospitality industry.

Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAHM 50A</td>
<td>Introduction to Culinary Arts Basics</td>
<td>1</td>
</tr>
<tr>
<td>CAHM 50B</td>
<td>Introduction to 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 153</td>
<td>Garde Manger</td>
<td>2</td>
</tr>
<tr>
<td>CAHM 157L</td>
<td>Catering and Beverage Operation Lab</td>
<td>3, 5</td>
</tr>
</tbody>
</table>

Total Units: 16-19

Skills Certificate in Entry Level Baking

The entry level baking certificate will provide the student with a solid foundation of baking skills necessary for entry level work in bakeries and pastry kitchens. The program covers basic and advanced baking techniques, bread making, chocolates, cake decorating, cooking and sanitation.

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAHM 50A</td>
<td>Introduction to Culinary Arts Basics</td>
<td>1</td>
</tr>
<tr>
<td>CAHM 50B</td>
<td>Introduction to 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 153</td>
<td>Garde Manger</td>
<td>2</td>
</tr>
<tr>
<td>CAHM 157L</td>
<td>Catering and Beverage Operation Lab</td>
<td>3, 5</td>
</tr>
</tbody>
</table>

Total Units: 16

Skills Certificate in Culinary Arts - Entry Level Cook

Learning Outcomes
1. Demonstrate knowledge of fundamental cooking theory, sanitation practices, food costing, menu design, and customer relations.
2. Produce consistent quality restaurant lunch and dinner products in a timely fashion.
3. Demonstrate professionalism as required in the hospitality industry.

Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAHM 50A</td>
<td>Introduction to Culinary Arts Basics</td>
<td>1</td>
</tr>
<tr>
<td>CAHM 50B</td>
<td>Introduction to 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 64</td>
<td>Sanitation and Hygiene</td>
<td>2</td>
</tr>
<tr>
<td>CAHM 149</td>
<td>Cake Decorating</td>
<td>1</td>
</tr>
<tr>
<td>CAHM 155</td>
<td>Basic Baking and Pastry</td>
<td>3</td>
</tr>
<tr>
<td>CAHM 159</td>
<td>Chocolate</td>
<td>1</td>
</tr>
<tr>
<td>CAHM 168</td>
<td>Advanced Baking and Pastry</td>
<td>3</td>
</tr>
<tr>
<td>CAHM 171</td>
<td>The Art of Creating Wedding Cakes</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Units: 16
## Skills Certificate in Wine and Wine Service

**Learning Outcomes**
Demonstrate knowledge of viticulture, viniculture, wine faults, world wines, and wine varietals.

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAHM 133</td>
<td>Wine Faults 2</td>
</tr>
<tr>
<td>CAHM 172A</td>
<td>Wine and Wine Service 2</td>
</tr>
<tr>
<td>CAHM 172B</td>
<td>Sensory Evaluation of Wine Varietals 2</td>
</tr>
<tr>
<td>CAHM 174</td>
<td>World Wines 3</td>
</tr>
<tr>
<td>CAHM 176</td>
<td>Basic Winemaking 2</td>
</tr>
<tr>
<td>CAHM 177</td>
<td>Basic Wine Grape Viticulture 2</td>
</tr>
<tr>
<td>CAHM 178</td>
<td>Wine Marketing and Sales 2</td>
</tr>
</tbody>
</table>

**Total Units** 15

## Skills Certificate in Wine Tasting Room Management

**Learning Outcomes**
1. Demonstrate knowledge of fundamental tasting room accounting, sales, marketing, promotion, and wine handling skills.
2. Demonstrate knowledge of enology, wine faults, California wine and wine varietals.

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAHM 133</td>
<td>Wine Faults 2</td>
</tr>
<tr>
<td>CAHM 135</td>
<td>Basic Wine Tasting Room Management 2</td>
</tr>
<tr>
<td>CAHM 172A</td>
<td>Wine and Wine Service 2</td>
</tr>
<tr>
<td>CAHM 172B</td>
<td>Sensory Evaluation of Wine Varietals 2</td>
</tr>
<tr>
<td>CAHM 176</td>
<td>Basic Winemaking 2</td>
</tr>
<tr>
<td>CAHM 178</td>
<td>Wine Marketing and Sales 2</td>
</tr>
<tr>
<td>CAHM 179</td>
<td>Wines of California 3</td>
</tr>
</tbody>
</table>

**Total Units** 15

## Skills Certificate in World Wines

**Learning Outcomes**
1. Identify world wine growing regions, varietals, labels, laws terroir, and wine production techniques.
2. Assess world wines for their olfactory and flavor notes relative to specific growing regions as well as the geopolitical aspects of the region.

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAHM 132</td>
<td>Spanish Wines 2</td>
</tr>
<tr>
<td>CAHM 134</td>
<td>Italian Wines 3</td>
</tr>
<tr>
<td>CAHM 136</td>
<td>French Wines 3</td>
</tr>
<tr>
<td>CAHM 140</td>
<td>Champagne and French Sparkling Wine 2</td>
</tr>
<tr>
<td>CAHM 172A</td>
<td>Wine and Wine Service 2</td>
</tr>
<tr>
<td>CAHM 172B</td>
<td>Sensory Evaluation of Wine Varietals 2</td>
</tr>
<tr>
<td>CAHM 174</td>
<td>World Wines 3</td>
</tr>
</tbody>
</table>

**Total Units** 17

## Culinary Arts and Hospitality Management Courses

### NUTR 20 Nutrition
3 units; 3 hours Lecture
Repeatability: May be taken a total of 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.

### NUTR 22 Nutrition, Health and Wellness
2 units; 2 hours Lecture
Repeatability: May be taken a total of 1 time.
Examines current trends in nutrition to promote wellness and treat nutrition-related diseases and conditions. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

### NUTR 120 Nutritional Cooking
3 units; 2 hours Lecture, 3 hours Laboratory
Repeatability: May be taken a total of 1 time.
Introduces the principles of menu planning for health and disease prevention. Explores the practical application of using food as medicine. Material fees apply.
Transfer Credit: Non-transferable.

### CAHM 10 Introduction to Hospitality Management
3 units; 3 hours Lecture
Repeatability: May be taken a total of 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 50A Introduction to Culinary Arts Basics
1 unit; 1 hour Lecture
Repeatability: May be taken a total of 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
Repeatability: May be taken a total of 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
Repeatability: May be taken a total of 1 time.
Introduces the principles of baking breads, cakes, custards, pies; prep­aration of fruits, vegetables, starches; and hors d’oeuvre preparation via lecture-based instruction.
Transfer Credit: Transfers to CSU.

CAHM 50L  Introduction to Culinary Arts Lab
2 units; 6 hours Laboratory
Hybrid Requisite: Completion of or concurrent enrollment in CAHM 50A and CAHM 50B and CAHM 50C.
Repeatability: May be taken a total of 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
Repeatability: May be taken a total of 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 – 3 hours Lecture
Repeatability: May be taken a total of 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
Repeatability: May be taken a total of 1 time.
Examines the theoretical and practical approaches to supervision and management for the prospective food service manager.
Transfer Credit: Transfers to CSU.

CAHM 64  Sanitation and Hygiene
2 units; 2 hours Lecture
Repeatability: May be taken a total of 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 130  Beer, Sake, and Spirits
2 units; 2 hours Lecture
Repeatability: May be taken a total of 1 time.
Provides a detailed examination of beer, sake and spirits through lectures and tastings including laws, production methods, and sensory evaluations. Must be 21 years of age to enroll. Material fees may apply. May be offered in a Distance-Learning Format.
Transfer Credit: Non-transferable.

CAHM 132  Spanish Wines
2 units; 2 hours Lecture
Repeatability: May be taken a total of 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. Material fees apply.
Transfer Credit: Non-transferable.

CAHM 133  Wine Faults
2 units; 2 hours Lecture
Repeatability: May be taken a total of 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. Material fees apply. May be offered in a Distance Learning Format.
Transfer Credit: Non-transferable.

CAHM 134  Italian Wines
3 units; 3 hours Lecture
Repeatability: May be taken a total of 1 time.
Presents a detailed examination of Italian wines through lectures and tastings, including grape varietals, viniculture, wine laws, and sensory evaluation. Must be at least 21 years old. Material fees apply.
Transfer Credit: Non-transferable.

CAHM 135  Basic Wine Tasting Room Management
2 units; 2 hours Lecture
Eligibility for MATH 154.
Repeatability: May be taken a total of 1 time.
Provides tasting room staff training on inventory management, sales, staff member duties, and customer interaction.
Transfer Credit: Non-transferable.

CAHM 136  French Wines
3 units; 3 hours Lecture
Repeatability: May be taken a total of 1 time.
Presents a detailed examination of French wines through lectures and tastings, including grape varietals, viniculture, wine laws, and sensory evaluation. Must be at least 21 years old. Material fees apply.
Transfer Credit: Non-transferable.

CAHM 137  Food and Wine Pairing I
2 units; 2 hours Lecture
Repeatability: May be taken a total of 1 time.
Provides basic food and wine pairing concepts and techniques through lecture and demonstration. Basic culinary concepts and wine components will be addressed. Must be at least 21 years old. Material fees apply.
Transfer Credit: Non-transferable.
CAHM 138  Food and Wine Pairing II
2 units; 1 hour Lecture, 3 hours Laboratory
Prerequisite: CAHM 137.
Repeatability: May be taken a total of 1 time.
Provides a detailed examination of food and wine pairing techniques including producing food in a practical setting that pairs correctly with wine. Must be at least 21 years old. Material fees apply.
Transfer Credit: Non-transferable.

CAHM 140  Champagne and French Sparkling Wine
2 units; 2 hours Lecture
Repeatability: May be taken a total of 1 time.
Presents a detailed examination of champagne and French sparkling wine through lectures and tastings, including grape varietals, viniculture, wine laws, and sensory evaluation. Must be at least 21 years old. Material fees apply.
Transfer Credit: Non-transferable.

CAHM 149  Cake Decorating
1 unit; 0.5 hour Lecture, 1.5 hours Laboratory
Repeatability: May be taken a total of 1 time.
Introduces cake decorating techniques including filling and icing cakes, pastry bag work in borders, Australian lace, string work, writing, and flowers. Material fees apply.
Transfer Credit: Non-transferable.

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.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

CAHM 153  Garde Manger
2 units; 1 hour Lecture, 3 hours Laboratory
Repeatability: May be taken a total of 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. Material fees apply.
Transfer Credit: Non-transferable.

CAHM 155  Basic Baking and Pastry
3 units; 2 hours Lecture, 3 hours Laboratory
Repeatability: May be taken a total of 1 time.
Introduces equipment, skills, and procedures in commercial bakeries, including hands-on production of pastries and specialty items. Material fees apply.
Transfer Credit: Non-transferable.

CAHM 156AZ  Special Topics in Culinary Arts and Hospitality Management
0.5 – 3 units; 0.5 – 3 hours Lecture or 1.5 – 9 hours Laboratory
Repeatability: May be taken a total of 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 specialties. Course content will vary with each offering as will Prerequisites.
Transfer Credit: Non-transferable.

CAHM 157L  Catering and Beverage Operation Lab
2.5 – 5 units; 7.5 – 15 hours Laboratory
Prerequisite: CAHM 50L.
Repeatability: May be taken a total of 1 time.
Provides practical application of catering techniques including menu planning, costing, hospitality service, and buffet presentation.
Transfer Credit: Non-transferable.

CAHM 159  Chocolate
1 unit; 0.5 hour Lecture, 1.5 hours Laboratory
Repeatability: May be taken a total of 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. Material fees apply.
Transfer Credit: Non-transferable.

CAHM 159AC  Artisan Confections
2 units; 1 hour Lecture, 3 hours Laboratory
Repeatability: May be taken a total of 1 time.
Introduces confectionery formulas, theory, and techniques including chocolate work, noncrystalline sugar, crystalline sugar, jellies, and aerated confections. Material fees apply.
Transfer Credit: Non-transferable.
CAHM 165  Meat Cutting and Sausage Making
2 units; 1 hour Lecture, 3 hours Laboratory
Repeatability: May be taken a total of 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. Material fees apply.
Transfer Credit: Non-transferable.

CAHM 167  Cultural and Ethnic Foods
2 units; 1 hour Lecture, 3 hours Laboratory
Repeatability: May be taken a total of 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. Material fees apply.
Transfer Credit: Non-transferable.

CAHM 168  Advanced Baking and Pastry
3 units; 2 hours Lecture, 3 hours Laboratory
Prerequisite: CAHM 155.
Repeatability: May be taken a total of 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. Material fees apply.
Transfer Credit: Non-transferable.

CAHM 171  The Art of Creating Wedding Cakes
1 unit; 0.5 hour Lecture, 1.5 hours Laboratory
Repeatability: May be taken a total of 1 time.
Explores the creation of wedding cakes including principles of mixing, baking, filling, frosting, and decorating. Material fees apply.
Transfer Credit: Non-transferable.

CAHM 172A  Wine and Wine Service
2 units; 2 hours Lecture
Repeatability: May be taken a total of 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. Material fees apply.
Transfer Credit: Non-transferable.

CAHM 172B  Sensory Evaluation of Wine Varietals
2 units; 2 hours Lecture
Repeatability: May be taken a total of 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. Material fees apply.
Transfer Credit: Non-transferable.

CAHM 174  World Wines
3 units; 3 hours Lecture
Prerequisite: CAHM 172A and CAHM 172B.
Repeatability: May be taken a total of 1 time.
Explores differences in viniculture, wine laws, grape varietals, and sensory perception of wine based on the terroir influences of various regions in major world wine producing countries. Must be at least 21 years of age to enroll. Material fees apply.
Transfer Credit: Non-transferable.

CAHM 175  History and Practice of Sauces
1 – 2 units; 0.5 – 1 hours Lecture, 1.5 – 3 hours Laboratory
Repeatability: May be taken a total of 1 time.
Presents the history and techniques of sauce making around the world. Material fees may apply.
Transfer Credit: Non-transferable.

CAHM 176  Basic Winemaking
2 units; 2 hours Lecture
Repeatability: May be taken a total of 1 time.
Introduces the science of wine making, including viticulture, production, harvest, cellar practices, fermentation, aging, blending, and bottling. Material fees apply. Must be at least 21 years old to enroll.
Transfer Credit: Non-transferable.

CAHM 177  Basic Wine Grape Viticulture
2 units; 2 hours Lecture
Repeatability: May be taken a total of 1 time.
Explores wine grape growing practices including history, vine and grape types, vine life cycle, vineyard management, pests, and diseases. Material fees apply. Must be at least 21 years old to enroll.
Transfer Credit: Non-transferable.

CAHM 178  Wine Marketing and Sales
2 units; 2 hours Lecture
Repeatability: May be taken a total of 1 time.
Presents wine marketing and sales methods including packaging, promotion, and getting the product to the consumer.
Transfer Credit: Non-transferable.
CAHM 179  Wines of California
3 units; 3 hours Lecture
Repeatability: May be taken a total of 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. Material fees apply.
*Transfer Credit:* Non-transferable.

CAHM 405A  Basic Knife Skills and Sanitation
0 units; 8 hours Laboratory
Repeatability: May be repeated.
Introduces fundamental knife skills used in a professional kitchen, sanitation, and food safety practices.
*Transfer Credit:* Non-transferable.

CAHM 405B  Basic Kitchen Skills
8 units; 8 hours Laboratory
Repeatability: May be repeated.
Introduces equipment, cooking skills, and basic kitchen terminology used in a professional kitchen.
*Transfer Credit:* Non-transferable.

DANCE
Visual, Applied, and Performing Arts Division
John Graulty, Division Dean
Division Office, Room VAPA1007
David King, Department Chair, (831) 479-5027
Aptos Counseling: (831) 479-6274 for appointment
Watsonville Counseling: (831) 786-4734
Call (831) 479-6464 for more information
http://www.cabrillo.edu/programs

Dance A.A. Degree
The Dance Program offers beginning and intermediate movement courses with a focus on dance as a Performing Art, and Dance Studies, emphasizing dance as an academic discipline that values the movement philosophies of many cultures. In addition to studying movement techniques, students learn about dance’s social functions in other areas, including education, health, cultural studies, art, history, and the science of human movement. In addition to studying movement techniques, students learn about dance’s 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.

Dance activity courses may be used to meet general education Area E, Lifelong Understanding and Self-Development for Cabrillo’s non-transferable Associate degrees, when combined with other non-activity Area E units from the CG or ECE departments.

Learning Outcomes
The Cabrillo College Core Competencies (with an emphasis in the study of Dance):
1. Communication: Reading, Writing, Listening, Speaking, and/or Conversing
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving

Model Program for Dance
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 goal. Please see a counselor for advisement for transfer to any 4-year institution.

**A.A. General Education**

<table>
<thead>
<tr>
<th>Dance</th>
<th>Units</th>
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<tbody>
<tr>
<td>Dance Appreciation (3 Units)</td>
<td>3</td>
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<tr>
<td>Dance Techniques (9 Units)</td>
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<tr>
<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>
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<tr>
<td>DANCE 3AP</td>
<td>Dance Conditioning/Pilates</td>
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<tr>
<td>DANCE 3BP</td>
<td>Dance Conditioning/Pilates II</td>
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<tr>
<td>DANCE 3CP</td>
<td>Dance Conditioning/Pilates III</td>
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<tr>
<td>DANCE 4</td>
<td>Contemporary Modern Dance I</td>
</tr>
<tr>
<td>DANCE 5</td>
<td>Contemporary Modern Dance II</td>
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<tr>
<td>DANCE 7</td>
<td>Ballet I</td>
</tr>
<tr>
<td>DANCE 8</td>
<td>Ballet II</td>
</tr>
<tr>
<td>DANCE 9A</td>
<td>Jazz Dance I</td>
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<tr>
<td>DANCE 9B</td>
<td>Jazz Dance II</td>
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<tr>
<td>DANCE 68</td>
<td>Advanced Dance Technique and Performance Skills</td>
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<tr>
<td>Dance Making (5.5 Units)</td>
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<tr>
<td>DANCE 11A</td>
<td>Dance Improvisation I</td>
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<tr>
<td>DANCE 11B</td>
<td>Dance Improvisation II</td>
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<tr>
<td>DANCE 12A</td>
<td>Choreography I</td>
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<td>DANCE 12B</td>
<td>Choreography II</td>
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<tr>
<td>Performance (3 Units)</td>
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<tr>
<td>DANCE 13</td>
<td>Dance Repertory</td>
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<tr>
<td>DANCE 14A</td>
<td>Dance Production</td>
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<tr>
<td>Program Electives (2.5 Units)</td>
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<tr>
<td>DANCE 15A</td>
<td>Salsa Dance I</td>
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<tr>
<td>DANCE 15B</td>
<td>Salsa Dance II</td>
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<tr>
<td>DANCE 15C</td>
<td>Salsa Dance III</td>
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<tr>
<td>DANCE 16A</td>
<td>Baile Folklórico: Regional Dances of Mexico I</td>
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<tr>
<td>DANCE 16B</td>
<td>Baile Folklórico: Regional Dances of Mexico II</td>
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<tr>
<td>DANCE 17A</td>
<td>Latin Dance I</td>
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<td>DANCE 17B</td>
<td>Latin Dance II</td>
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<tr>
<td>DANCE 17C</td>
<td>Latin Dance III</td>
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<tr>
<td>DANCE 17D</td>
<td>Latin Dance IV</td>
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<tr>
<td>DANCE 19A</td>
<td>Hip Hop Dance I</td>
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<td>DANCE 19B</td>
<td>Hip Hop Dance II</td>
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<td>DANCE 19C</td>
<td>Hip Hop Dance III</td>
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<td>DANCE 19D</td>
<td>Hip Hop Dance IV</td>
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<tr>
<td>DANCE 21A</td>
<td>Ballroom Dance I</td>
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<tr>
<td>DANCE 21B</td>
<td>Ballroom Dance II</td>
</tr>
<tr>
<td>DANCE 82A</td>
<td>Body Mind Techniques: Applied Somatics I</td>
</tr>
<tr>
<td>DANCE 82B</td>
<td>Body Mind Techniques: Applied Somatics II</td>
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<tr>
<td>Other Electives (10 Units)</td>
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<tr>
<td>BIO 4</td>
<td>Human Anatomy</td>
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<td>or</td>
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<tr>
<td>BIO 13A</td>
<td>Biology of People-Anatomy and Physiology</td>
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<tr>
<td>MUS 10</td>
<td>Music Appreciation</td>
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<tr>
<td>MUS 11A</td>
<td>Jazz Appreciation</td>
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</tbody>
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**Total Units: 60**

**Choreographic Studies Skills Certificate**

Learning Outcome:

1. Communication: Conversing and/or Speaking, Listening, Reading, Writing.

**Dance Appreciation (3 Units)**

<table>
<thead>
<tr>
<th>Dance</th>
<th>Units</th>
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<tbody>
<tr>
<td>DANCE 1</td>
<td>Dance Appreciation</td>
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**Dance Making (5.5 Units)**

<table>
<thead>
<tr>
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<tr>
<td>DANCE 11A</td>
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<td>Dance Improvisation II</td>
</tr>
<tr>
<td>DANCE 12A</td>
<td>Choreography I</td>
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<tr>
<td>DANCE 12B</td>
<td>Choreography II</td>
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**Performance (6 Units)**

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<th>Dance</th>
<th>Units</th>
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<tbody>
<tr>
<td>DANCE 13</td>
<td>Dance Repertory</td>
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<tr>
<td>DANCE 14A</td>
<td>Dance Production</td>
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</table>

**Accessing Creativity (1.5 Units)**

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<th>Dance</th>
<th>Units</th>
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<tbody>
<tr>
<td>DANCE 82A</td>
<td>Body Mind Techniques: Applied Somatics I</td>
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</tbody>
</table>

**Total Units: 16**

**Creative Careers - Discovering Self-Directed Pathways Skills Certificate**

Learning Outcome:

Research and analyze ways to create impact and develop a livelihood in all visual, applied, and performing arts disciplines by identifying your WHY and focusing on unique, self-directed, non-traditional, and entrepreneurial pathways.

**Required**

<table>
<thead>
<tr>
<th>Dance</th>
<th>Units</th>
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<tbody>
<tr>
<td>AH 79</td>
<td>Creative Careers - Discovering Self Directed Pathways</td>
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<tr>
<td>or AP 79</td>
<td>Creative Careers - Discovering Self Directed Pathways</td>
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<tr>
<td>or ART 79</td>
<td>Creative Careers - Discovering Self Directed Pathways</td>
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<tr>
<td>or DANCE 79</td>
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<tr>
<td>or DM 79</td>
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<tr>
<td>or MUS 79</td>
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<tr>
<td>or TA 79</td>
<td>Creative Careers - Discovering Self Directed Pathways</td>
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**and**

<table>
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<tr>
<th>Dance</th>
<th>Units</th>
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<tbody>
<tr>
<td>BUS 88</td>
<td><em>Starting and Operating a New Small Business</em></td>
</tr>
</tbody>
</table>

*Special VAPA only cohort offering, typically offered every spring term

Any AH/AP/ART/DANCE/DM/MUS/TA course 1-99 | 0 - 10

**Total Units: 7-10**
Social and Urban Dance Skills Certificate

**Learning Outcome:**

### Dance Appreciation (3 Units) Units
- **DANCE 1:** Dance Appreciation ........................................ 3

### Dance Making (2 Units) Units
- **DANCE 11A:** Dance Improvisation I................................. 0.5 - 3
- **DANCE 11B:** Dance Improvisation II................................. 0.5 - 3
- **DANCE 12A:** Choreography I........................................ 0.5 - 3
- **DANCE 12B:** Choreography II........................................ 0.5 - 3

### Performance (4 Units) Units
- **DANCE 13:** Dance Repertory ........................................ 0.5 - 4
- **DANCE 14A:** Dance Production ........................................ 0.5 - 4

### Techniques and Styles (8 Units) Units
- **DANCE 15A:** Salsa Dance I........................................... 0.5 - 3
- **DANCE 15B:** Salsa Dance II........................................... 0.5 - 3
- **DANCE 16A:** Baile Folklórico: Regional Dances of Mexico I ........................................ 0.5 - 3
- **DANCE 16B:** Baile Folklórico: Regional Dances of Mexico II ........................................ 0.5 - 3
- **DANCE 17A:** Latin Dance I............................................ 0.5 - 3
- **DANCE 17B:** Latin Dance II............................................ 0.5 - 3
- **DANCE 17C:** Latin Dance III.......................................... 0.5 - 3
- **DANCE 18A:** African Dance I......................................... 0.5 - 3
- **DANCE 19A:** Hip Hop Dance I....................................... 0.5 - 3
- **DANCE 19B:** Hip Hop Dance II....................................... 0.5 - 3
- **DANCE 19C:** Hip Hop Dance III................................. 0.5 - 3
- **DANCE 21A:** Ballroom Dance I.................................... 0.5 - 3
- **DANCE 21B:** Ballroom Dance II.................................... 0.5 - 3

**Total Units** 17

### Dance Courses

**DANCE 1  Dance Appreciation**
3 units; 3 hours Lecture
Repeatability: May be taken a total of 1 time.
Examine dance in multiple cultural, artistic, historical and performance contexts, using lectures, video, demonstration, viewing live performances, and exploration of selected dance styles. May be offered in a Distance-Learning Format.
_Transfer Credit: Transfers to CSU; UC._

**DANCE 2A  Introduction to Dance I**
0.5 – 3 units; 1 – 6 hours Laboratory
Repeatability: May be taken a total of 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._

**DANCE 2B  Introduction to Dance II**
0.5 – 3 units; 1 – 6 hours Laboratory
Prerequisite: DANCE 2A or equivalent skills.
Repeatability: May be taken a total of 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._

**DANCE 3AP  Dance Conditioning/Pilates I**
0.5 – 3 units; 1 – 6 hours Laboratory
Repeatability: May be taken a total of 1 time.
Presents instruction in the six principles of 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. May be offered in a Distance-Learning Format
_Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity courses: maximum credit-4 units. DANCE 3AP is a KIN Activity course._

**DANCE 3BP  Dance Conditioning/Pilates II**
0.5 – 3 units; 1 – 6 hours Laboratory
Prerequisite: DANCE 3AP or equivalent skills.
Repeatability: May be taken a total of 1 time.
Continues instruction in the six principles of 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 3BP is a KIN Activity course._

**DANCE 3CP  Dance Conditioning/Pilates III**
0.5 – 3 units; 1 – 6 hours Laboratory
Prerequisite: DANCE 3BP or equivalent skills.
Repeatability: May be taken a total of 1 time.
Teaches performance of the six principles of Pilates mat work with an emphasis on sequences increasing 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 3CP is a KIN Activity course._

**DANCE 4  Contemporary Modern Dance I**
0.5 – 3 units; 1 – 6 hours Laboratory
Recommended Preparation: DANCE 2A.
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; 1 – 6 hours Laboratory
Recommended Preparation: DANCE 4.
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; 1 – 6 hours Laboratory
Recommended Preparation: DANCE 2A.
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; 1 – 6 hours Laboratory
Recommended Preparation: DANCE 7.
Repeatability: May be taken a total of 4 times.
Introduces 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 Jazz Dance I
0.5 – 3 units; 1 – 6 hours Laboratory
Recommended Preparation: DANCE 2A.
Repeatability: May be taken a total of 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.

DANCE 9B Jazz Dance II
0.5 – 3 units; 1 – 6 hours Laboratory
Prerequisite: DANCE 9A or equivalent skills.
Repeatability: May be taken a total of 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.

DANCE 10A Intermediate Jazz Dance I
0.5 – 3 units; 1 – 6 hours Laboratory
Prerequisite: DANCE 9B or equivalent skills.
Repeatability: May be taken a total of 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.

DANCE 10B Intermediate Jazz Dance II
0.5 – 3 units; 1 – 6 hours Laboratory
Prerequisite: DANCE 10A or equivalent skills.
Repeatability: May be taken a total of 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.

DANCE 11A Dance Improvisation I
0.5 – 3 units; 1 – 6 hours Laboratory
Repeatability: May be taken a total of 1 time.
Provides a supportive and playful group environment for students of any level to explore personal and expressive movement, the creative process, and improvisation techniques.
Transfer Credit: Transfers to CSU; UC.

DANCE 11B Dance Improvisation II
0.5 – 3 units; 1 – 6 hours Laboratory
Prerequisite: DANCE 11A or equivalent skills.
Repeatability: May be taken a total of 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 dancemaking.
Transfer Credit: Transfers to CSU; UC.

DANCE 12A Choreography I
0.5 – 3 units; 1 – 6 hours Laboratory
Repeatability: May be taken a total of 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 and 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.
DANCE 12B  Choreography II  
0.5 – 3 units; 1 – 6 hours Laboratory  
Prerequisite: DANCE 12A or equivalent skills.  
Repeatability: May be taken a total of 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.

DANCE 13  Dance Repertory  
0.5 – 4 units; 1 – 8 hours Laboratory  
Recommended Preparation: DANCE 2A.  
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; 1 – 8 hours Laboratory  
Recommended Preparation: DANCE 2A.  
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; 1 – 6 hours Laboratory  
Recommended Preparation: DANCE 2A.  
Repeatability: May be taken a total of 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.

DANCE 15B  Salsa Dance II  
0.5 – 3 units; 1 – 6 hours Laboratory  
Prerequisite: DANCE 15A or equivalent skills.  
Repeatability: May be taken a total of 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.

DANCE 15C  Salsa Dance III  
0.5 – 3 units; 1 – 6 hours Laboratory  
Prerequisite: DANCE 15B or equivalent skills.  
Repeatability: May be taken a total of 1 time.  
Continues the study of Salsa Dance from DANCE 15B, synthesizing Salsa techniques with emphasis on personal expression and creativity within the cultural form.  
Transfer Credit: Transfers to CSU; UC.

DANCE 16A  Baile Folklórico: Regional Dances of Mexico I  
0.5 – 3 units; 1 – 6 hours Laboratory  
Repeatability: May be taken a total of 1 time.  
Introduces the fundamentals of Mexican Folklórico 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.

DANCE 16B  Baile Folklórico: Regional Dances of Mexico II  
0.5 – 3 units; 1 – 6 hours Laboratory  
Prerequisite: DANCE 16A or equivalent skills.  
Repeatability: May be taken a total of 1 time.  
Continues the study of Mexican Folklórico 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.

DANCE 17A  Latin Dance I  
0.5 – 3 units; 1 – 6 hours Laboratory  
Recommended Preparation: DANCE 2A.  
Repeatability: May be taken a total of 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.

DANCE 17B  Latin Dance II  
0.5 – 3 units; 1 – 6 hours Laboratory  
Prerequisite: DANCE 17A or equivalent skills.  
Repeatability: May be taken a total of 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.

DANCE 17C  Latin Dance III  
0.5 – 3 units; 1 – 6 hours Laboratory  
Prerequisite: DANCE 17B or equivalent skills.  
Repeatability: May be taken a total of 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.
DANCE 17D  Latin Dance IV
0.5 – 3 units; 1 – 6 hours Laboratory
Prerequisite: DANCE 17C or equivalent skills.
Repeatability: May be taken a total of 1 time.
Continues the study of Latin Dance from DANCE 17C, introducing the Bolero and refining the Mambo and Cumbia forms, focusing on competition and advanced level performance.
Transfer Credit: Transfers to CSU; UC.

DANCE 18A  African Dance I
0.5 – 3 units; 1 – 6 hours Laboratory
Recommended Preparation: DANCE 2A.
Repeatability: May be taken a total of 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; 1 – 6 hours Laboratory
Recommended Preparation: DANCE 2A.
Repeatability: May be taken a total of 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.

DANCE 19B  Hip Hop Dance II
0.5 – 3 units; 1 – 6 hours Laboratory
Prerequisite: DANCE 19A or equivalent skills.
Repeatability: May be taken a total of 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.

DANCE 19C  Hip Hop Dance III
0.5 – 3 units; 1 – 6 hours Laboratory
Prerequisite: DANCE 19B or equivalent skills.
Repeatability: May be taken a total of 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.

DANCE 19D  Hip Hop Dance IV
0.5 – 3 units; 1 – 6 hours Laboratory
Prerequisite: DANCE 19C or equivalent skills.
Repeatability: May be taken a total of 1 time.
Continues and deepens the practice of Hip Hop Dance techniques from DANCE 19C, elaborating on Hip Hop movement styles to refine personal expressivity, musicality, and the use of poetic imagery to connect to the dance form.
Transfer Credit: Transfers to CSU; UC.

DANCE 21A  Ballroom Dance I
0.5 – 3 units; 1 – 6 hours Laboratory
Repeatability: May be taken a total of 1 time.
Introduces the basic steps and skills 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 21B  Ballroom Dance II
0.5 – 3 units; 1 – 6 hours Laboratory
Prerequisite: DANCE 21A or equivalent skills.
Repeatability: May be taken a total of 1 time.
Continues the study of Ballroom techniques from DANCE 21A and applies them to 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 68  Advanced Dance Technique and Performance Skills
0.5 – 3 units; 1 – 6 hours Laboratory
Repeatability: May be taken a total of 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 74  Creative Movement
0.5 – 3 units; 1 – 6 hours Laboratory
Repeatability: May be taken a total of 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 79  Creative Careers-Discovering Self-Directed Pathways
3 units; 3 hours Lecture, 1 hour Laboratory
Repeatability: May be taken a total of 1 time.
Investigates creative career opportunities in all visual, applied, and performing arts disciplines, with a focus on unique, self-directed, non-traditional, and entrepreneurial pathways and the academic and life choices necessary to realize such opportunities. May be offered in a Distance-Learning Format. Materials fee may apply. AH 79, ART 79, AP 79, DANCE 79, DM 79, MUS 79, and TA 79 are cross listed courses. Students may enroll in only one course for credit.
Transfer Credit: Transfers to CSU.

DANCE 79AZ  Special Topics in Dance
0.5 – 3 units; 0.5 – 3 hours Lecture or 1 – 6 hours Laboratory
Repeatability: May be taken a total of 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; 1 – 6 hours Laboratory
Recommended Preparation: DANCE 61.
Repeatability: May be taken a total of 1 time.
Builds understanding of swing dance and expands the students’ repertoire of dance skills across a wide range of traditional and popular swing dance styles.
Transfer Credit: Transfers to CSU; UC.

DANCE 82A  Body Mind Techniques: Applied Somatics I
0.5 – 3 units; 1 – 6 hours Laboratory
Repeatability: May be taken a total of 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 82B  Body Mind Techniques: Applied Somatics II
0.5 – 3 units; 1 – 6 hours Laboratory
Recommended Preparation: DANCE 82A or equivalent skills.
Repeatability: May be taken a total of 1 time.
Continues a 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.

DENTAL HYGIENE
Health, Athletics, Wellness, and Kinesiology Division
Cynthia S. T. FitzGerald, PhD
HAWK Division, Associate Dean for Allied Health, SDLC & APE
Noel Kelsch, Director, (831) 479-6471
Aptos Counseling: (831) 479-6274 for appointment
Watsonville Counseling: (831) 786-4734
Call (831) 479-6471 for more information
http://www.cabrillo.edu/programs

Dental Hygiene A.S. Degree
The Dental Hygiene Program at Cabrillo College, is 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, expose dental x-rays, and provide preventative 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.

Learning Outcomes:
1. Promote dental health and disease prevention both at chairside and at the community level.
2. Apply ethical, professional, and legal concepts to the provision and/or the support of oral health care services to all persons.

How to Apply
Admission to the Dental Hygiene Program requires a separate and additional process to general college admission. The dental hygiene information and application forms are available online at http://www.cabrillo.edu/academics/dentalhygiene/. General college admission information is available on the Admissions & Records website at http://cabrillo.edu/services/ar/
Read all material in the application packet and the appropriate sections of the Cabrillo College Catalog about the Associate degree in Dental Hygiene, 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 the Dental Hygiene How to Apply web page at http://www.cabrillo.edu/academics/dentalhygiene/.
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 Dental Hygiene Program, which must be sent by certified mail. It is the responsibility of the applicant to inform the Dental Hygiene Department of any change in address or telephone number.

A completed application includes:
1. Dental Hygiene application form,
2. Minimum Physical and Non Physical Standards form,
3. Transcripts documenting ALL completed college coursework
   • Cabrillo College courses only: Print one (1) WebAdvisor unofficial transcript.
   • ALL other colleges/universities attended: One (1) sealed official transcript.
### Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>DH 7</td>
<td>Head and Neck Anatomy and Embryology</td>
</tr>
<tr>
<td>DH 160</td>
<td>Oral Health Education</td>
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<tr>
<td>DH 161</td>
<td>Preparation for Dental Hygiene Clinic</td>
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<tr>
<td>DH 162A</td>
<td>Patient Assessment I</td>
</tr>
<tr>
<td>DH 162B</td>
<td>Patient Assessment II</td>
</tr>
<tr>
<td>DH 163A</td>
<td>Dental Radiology</td>
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<tr>
<td>DH 163B</td>
<td>Dental Radiographic Interpretation and Case Studies</td>
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<tr>
<td>DH 164</td>
<td>Dental Materials</td>
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<tr>
<td>DH 170</td>
<td>Tooth Morphology, Oral Histology, and Oral Embryology</td>
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<tr>
<td>DH 171</td>
<td>Introduction to Clinical Dental Hygiene</td>
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<td>DH 173</td>
<td>Clinical Dental Hygiene I</td>
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<td>DH 174</td>
<td>Periodontics</td>
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<tr>
<td>DH 180</td>
<td>Oral Pathology</td>
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<tr>
<td>DH 181</td>
<td>Clinical Dental Hygiene II</td>
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<tr>
<td>DH 182A</td>
<td>Advanced Case Studies</td>
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<tr>
<td>DH 183</td>
<td>Clinical Dental Hygiene III</td>
</tr>
<tr>
<td>DH 184A</td>
<td>Pain Management I</td>
</tr>
<tr>
<td>DH 184B</td>
<td>Pain Management II</td>
</tr>
<tr>
<td>DH 186A</td>
<td>Community Oral Health and Research</td>
</tr>
<tr>
<td>DH 186B</td>
<td>Community Oral Health and Case Studies</td>
</tr>
<tr>
<td>DH 187</td>
<td>Dental Hygiene Law and Ethics</td>
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### Prerequisites

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<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>BIO 4</td>
<td>Human Anatomy</td>
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<td>BIO 5</td>
<td>Human Physiology</td>
</tr>
<tr>
<td>BIO 6</td>
<td>Microbiology</td>
</tr>
<tr>
<td>CHEM 30B</td>
<td>Introductory Organic Chemistry and Biochemistry for Health Occupations</td>
</tr>
<tr>
<td>ENGL 1A/1AH/1AMC/1AMCH</td>
<td>3</td>
</tr>
</tbody>
</table>

Due to the rigorous academic nature of the Dental Hygiene Program, it is advisable to complete the general education requirements for the Associate Degree, before entering the program. The DH program follows the academic policies and procedures listed in the Cabrillo College Catalog and DH Student Policy Handbook.

MATH 152, or MATH 152A and MATH 152B or MATH 142 or MATH 142A and MATH 142B or equivalent is a prerequisite for CHEM 30A and CHEM 32. CHEM 30A is a prerequisite for CHEM 30B, BIO 5, and BIO 6. These prerequisites may also be used to satisfy appropriate general education areas.

Successful completion of these prerequisites or equivalent is required before applying to the Dental Hygiene Program. It is required that all science prerequisites be completed within the last six (6) years. Applicants are permitted to repeat prerequisites for a better grade provided the course was completed more than six (6) years ago.

### 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.

### Associate in Science Degree in Dental Hygiene

<table>
<thead>
<tr>
<th>Category</th>
<th>Units</th>
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<tbody>
<tr>
<td>General Education Courses</td>
<td>21</td>
</tr>
<tr>
<td>Core Courses</td>
<td>58</td>
</tr>
<tr>
<td>Total Units</td>
<td>79</td>
</tr>
</tbody>
</table>

Plus approved prerequisite units. See above for information on prerequisites.
Dental Administrative Assistant Certificate of Completion

The Dental Administrative Assistant certificate of completion is designed to prepare students for employment in positions within dental healthcare and industry that involve performing as dental office personnel. The Dental Administrative Assistant works in a dental healthcare facility doing front office and administrative tasks. Positions require excellent communication and detail skills. Dental Administrative Assistants find employment opportunities with dentists and clinics.

Learning Outcomes:
Demonstrate and apply legal and ethical concepts, dental terminology, and dental insurance procedures to the practice of dentistry.

Required Courses
- DH 455 Dental Terminology
- DH 457 Dental Law and Ethics
- DH 459 Dental Insurance

Introduction to Dental Technology Computer Training Certificate of Completion

The Introduction to Dental Technology Computer Training Certificate of Completion is designed to prepare students for employment in positions in dental healthcare and industry that involve the use of dental patient management software. These courses provide training in the use of, but not limited to, dental management software and tools for taking intraoral pictures and digital radiography. This type of training can lead to further educational goals and enhanced employment opportunities with dentists and dental clinics.

Learning Outcomes:
Apply theoretical knowledge and clinical decision-making skills in the use of dental patient management software.

Required Courses
- DH 453A Dental Technology I
- DH 453B Dental Technology II

Dental Hygiene Courses

DH 7  Head and Neck Anatomy and Embryology
2 units; 1.5 hours Lecture, 1.5 hours Laboratory
Repeatability: May be taken a total of 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 – 3 hours Lecture, 1.5 – 9 hours Laboratory
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

DH 160 Oral Health Education
2 units; Lecture, 2 hours Laboratory
Prerequisite: Acceptance to the Cabrillo Dental Hygiene Program; NUTR 20; PSYCH 1 or PSYCH 1H.
Repeatability: May be taken a total of 1 time.
Prepares students for employment as dental hygiene assistants and enhances the knowledge of oral health. May be offered in a Distance-Learning Format.
Transfer Credit: Non-transferable.

DH 161 Preparation for Dental Hygiene Clinic
0.5 unit; Lecture, 0.5 hour Laboratory
Prerequisite: Acceptance to the Cabrillo Dental Hygiene Program.
Repeatability: May be taken a total of 1 time.
Introduces dental terminology, blood borne pathogen guidelines, basic instrumentation skills, proper positioning and ergonomics, and time management for the dental hygiene student. May be offered in a Distance-Learning Format.
Transfer Credit: Non-transferable.

DH 162A Patient Assessment I
2.5 units; 2.5 hours Lecture, 1 hour Laboratory
Prerequisite: Acceptance to the Cabrillo Dental Hygiene Program.
Co-requisite: DH 173.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

DH 162B Patient Assessment II
3 units; 3 hours Lecture
Prerequisite: Acceptance to the Cabrillo Dental Hygiene Program; DH 162A.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

DH 163A Dental Radiology
3 units; 2 hours Lecture, 3 hours Laboratory
Prerequisite: Acceptance to the Cabrillo Dental Hygiene Program.
Repeatability: May be taken a total of 1 time.
Prepares students for employment as dental hygiene assistants and enhances the knowledge of oral health. May be offered in a Distance-Learning Format.
Transfer Credit: Non-transferable.
DH 163B  Dental Radiographic Interpretation and Case Studies  
1 unit; 1 hour Lecture, 1 hour Laboratory  
Prerequisite: Acceptance to the Cabrillo Dental Hygiene Program.  
Repeatability: May be taken a total of 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.  
Transfer Credit: Non-transferable.

DH 164  Dental Materials  
2 units; 2 hours Lecture, 1 hour Laboratory  
Prerequisite: Acceptance to the Cabrillo Dental Hygiene Program.  
Repeatability: May be taken a total of 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.  
Transfer Credit: Non-transferable.

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.  
Repeatability: May be taken a total of 1 time.  
Discriminates between 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.  
Transfer Credit: Non-transferable.

DH 171  Introduction to Clinical Dental Hygiene  
6 units; 3 hours Lecture, 9 hours Laboratory  
Prerequisite: Acceptance to the Cabrillo Dental Hygiene Program.  
Repeatability: May be taken a total of 1 time.  
Introduces professional/ethical conduct, sterilization, infection control, and instrument basics of: exploring, probing, and beginning 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.  
Transfer Credit: Non-transferable.

DH 173  Clinical Dental Hygiene I  
6.5 units; 2 hours Lecture, 14 hours Laboratory  
Prerequisite: Acceptance to the Cabrillo Dental Hygiene Program; DH 171.  
Repeatability: May be taken a total of 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.  
Transfer Credit: Non-transferable.

DH 174  Periodontics  
2 units; 2 hours Lecture  
Prerequisite: Acceptance to the Cabrillo Dental Hygiene Program.  
Repeatability: May be taken a total of 1 time.  
Presents fundamental principles of periodontology: normal and diseased periodontium, the disease classifications, etiology, and treatment with an emphasis on clinical application.  
Transfer Credit: Non-transferable.

DH 177  Interim Therapeutic Restorations and Radiographic Decision Making  
.5 unit; .5 hour Lecture; .5 hour Laboratory  
Prerequisite: Acceptance to the Cabrillo Dental Hygiene Program.  
Repeatability: May be taken a total of 1 time.  
Introduces the history and principles of placement of Interim Therapeutic Restorations and Radiographic Decision Making by the dental hygienist in various dental settings. May be offered in a Distance-Learning Format.  
Transfer Credit: Non-transferable.

DH 180  Oral Pathology  
2 units; 2 hours Lecture  
Prerequisite: Acceptance to the Cabrillo Dental Hygiene Program.  
Repeatability: May be taken a total of 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.  
Transfer Credit: Non-transferable.

DH 181  Clinical Dental Hygiene II  
8.5 units; 2 hours Lecture, 20 hours Laboratory  
Prerequisite: Acceptance to the Cabrillo Dental Hygiene Program; DH 173.  
Repeatability: May be taken a total of 1 time.  
Introduces advanced clinical techniques, advanced treatment planning, and evaluation of treatment through clinical experiences at Cabrillo and possibly outside clinics. Third in a four-course series. May be offered in a Distance-Learning Format.  
Transfer Credit: Non-transferable.

DH 182A  Advanced Case Studies  
1 unit; 1 hour Lecture  
Prerequisite: Acceptance to the Cabrillo Dental Hygiene Program.  
Repeatability: May be taken a total of 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.  
Transfer Credit: Non-transferable.

DH 183  Clinical Dental Hygiene III  
6 units; 1 hour Lecture, 16 hours Laboratory  
Prerequisite: Acceptance to the Cabrillo Dental Hygiene Program; DH 181.  
Repeatability: May be taken a total of 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 possibly outside clinics. Fourth in a four-course series in clinical dental hygiene practice. May be offered in a Distance-Learning Format.  
Transfer Credit: Non-transferable.
DH 184A  Pain Management I
2 units; 1 hour Lecture, 3 hours Laboratory
Prerequisite: Acceptance to the Cabrillo Dental Hygiene Program.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

DH 184B  Pain Management II
1 unit; 1 hour Lecture, 1 hour Laboratory
Prerequisite: Acceptance to the Cabrillo Dental Hygiene Program.
Repeatability: May be taken a total of 1 time.
Teaches administration of nitrous oxide/oxygen conscious analgesia competently to clinical proficiency. May be offered in a Distance-Learning Format.
Transfer Credit: Non-transferable.

DH 186A  Community Oral Health and Research
2 units; 2 hours Lecture
Prerequisite: Acceptance to the Cabrillo Dental Hygiene Program.
Repeatability: May be taken a total of 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. May be offered in a Distance-Learning Format.
Transfer Credit: Non-transferable.

DH 186B  Community Oral Health and Case Studies
1 unit; 3 hours Laboratory
Prerequisite: Acceptance to the Cabrillo Dental Hygiene Program; DH 186A.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

DH 187  Dental Hygiene Law and Ethics
2 units; 2 hours Lecture
Prerequisite: Acceptance to the Cabrillo Dental Hygiene Program.
Repeatability: May be taken a total of 1 time.
Teaches current concepts in ethics and legalities involved in dental hygiene practice. May be offered in a Distance-Learning Format.
Transfer Credit: Non-transferable.

DH 453A  Dental Technology I
0 units; 9 hours Lecture
Teaches theory, application and hands-on computer training with patient management software used in the dental office.

DH 453B  Dental Technology II
0 units; 9 hours Lecture
Teaches theory, application, and hands-on computer training with digital radiography and intraoral camera used in the dental office.

DH 455  Dental Terminology
0 units; 36 hours Lecture, 18 hours Laboratory
Teaches fundamentals of dental/medical word building with an emphasis on prefixes, word roots, suffixes, combining forms, abbreviations, and lay terms. Provides a background for any dental course.

DH 457  Dental Law and Ethics
0 units; 36 hours Lecture, 18 hours Laboratory
Teaches dental ethics and dental legal issues, including discussion of California state dental regulations and legal standards of practice for dental care workers.

DH 459  Dental Insurance
0 units; 36 hours Lecture, 18 hours Laboratory
Teaches theory and application of dental insurance billing and procedures as used in dental offices. Includes hands-on practice with insurance claim forms and dental practice management software.
Foundations in Leadership and Management

The Academy for College Excellence is a nationally acclaimed program that provides students with professional leadership skills. The sequenced courses offer support, awareness of personal learning styles, and the development of skills and discipline necessary for success. The program is designed to introduce students to leadership and communication skills for professional and academic success.

For more information, contact the Learning Community Center office at (831) 477-3340 or our website at http://www.cabrillo.edu/academics/ace/

Learning Outcomes

The Cabrillo College Core Competencies (with an emphasis in the study of Digital Management/Career Preparation):

1. Communication: Reading, Writing, Listening, Speaking, and/or Conversing

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


Required Courses

DMCP 401 Foundation Course ................................. 0
DMCP 10 Foundations of Leadership ........................... 2
or
DMCP 111 Introduction to Team Self-Management .......... 2
DMCP 112 Social Justice Research Methods and Team Management ............................. 3
CG 54 Career Planning ........................................... 1
ENGL 1A College Composition ................................... 3
or
ENGL 100 Elements of Writing ................................. 3
or
ESL 100 High Advanced Academic ESL ...................... 4-6

Total Units 9-12

Preparation for Leadership and Management Careers

Certificate of Competency

The Academy for College Excellence is a program designed for students in search of a pathway toward upward mobility. The sequenced courses offer an accelerated path to workforce readiness through support, awareness of personal learning styles, and the development of skills and discipline necessary for success. The program is designed to prepare students for success in high wage, high demand careers that require technological and leadership skills, including management positions. The noncredit program offers affordable, flexible, and repeatable options for learning the foundations of leadership and team self-management.

Learning Outcomes

1. Identify and articulate models of dynamic leadership and principals of team self-management.

2. Demonstrate the four stages of team development with the working styles required at each stage.

3. Develop communication and self-management skills for workforce preparation.

4. Identify personal goals while predicting behavioral distractions that prevent effective self-management and team leadership.

Required Courses

DMCP 401 Foundation of Leadership and
DMCP 411 Team Self-Management

Digital Management and Career Preparation Courses

DMCP 10 Foundations of Leadership

2 units; 2 hours Lecture
Repeatability: May be taken a total of 1 time.
Develops insights and behaviors for success in professional and academic contexts, including advanced competencies in teamwork, leadership, interpersonal communication, cooperation, collaboration, self-efficacy, self-discipline, and critical thinking.
Transfer Credit: CSU, UC.

DMCP 111 Introduction to Team Self-Management

2 units; 2 hours Lecture
Hybrid Requisite: Completion of or concurrent enrollment in DMCP 112.
Recommended Preparation: READ 255 or eligibility for READ 205.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.
DMCP 112  
**Social Justice Research Methods and Team Management**
3 units; 3 hours Lecture, 1 hour Laboratory
Hybrid Requisite: Completion of or concurrent enrollment in DMCP 111.
Recommended Preparation: READ 255 or Eligibility for READ 205.
Repeatability: May be taken a total of 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.
*Transfer Credit: Non-transferable.*

DMCP 113  
**Field Study in Research Methods and Team Work**
1.5 units; 1.5 hours Lecture
Hybrid Requisite: Completion of or concurrent enrollment in the following courses: DMCP 111 or DMCP 112.
Recommended Preparation: READ 255 or Eligibility for READ 205.
Repeatability: May be taken a total of 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.
*Transfer Credit: Non-transferable.*

DMCP 130  
**First Year Experience Seminar**
1 – 2 units; 0.5 – 3 hours Laboratory
Repeatability: May be taken a total of 1 time.
Supports students’ successful participation within learning communities and transition to other Cabrillo College programs.
*Transfer Credit: Non-transferable.*

DMCP 160A-ZZ  
**Special Topics for Academy for College Excellence Program**
1 – 4 units; 1 – 4 hours Lecture or 3 – 12 hours Laboratory
Recommended Preparation: Eligibility for READ 255 or READ 205.
Repeatability: May be taken a total of 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.
*Transfer Credit: Non-transferable.*

DMCP 401  
**Foundation Course**
0 units; 5 – 72 hours Laboratory
Repeatability: This course may be repeated.
Identifies professional behaviors that lead to academic success and workforce preparation such as developing self-discipline, leading self-managed teams, and creating effective teams composed of individuals with different working styles.

DMCP 411  
**Team Self-Management**
0 units; 5 – 72 hours Laboratory
Repeatability: This course may be repeated.
Introduces the theory and practice of team self-management and its application in work organizations: exploring the connections among purpose, intentions, and behaviors to develop the self-management skills to successfully attain goals.

DMCP 510A  
**Foundation of Leadership Course Module A**
0 units; 16 hours Laboratory
Prerequisite: DMCP 510A.
Repeatability: May be taken a total of 20 times.
Analyzes 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 510B  
**Foundation of Leadership Course Module B**
0 units; 16 hours Laboratory
Prerequisite: DMCP 510A.
Repeatability: May be taken a total of 20 times.
Analyzes 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 510C  
**Foundation of Leadership Course Module C**
0 units; 17.9 hours Laboratory
Prerequisite: DMCP 510B.
Repeatability: May be taken a total of 20 times.
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 510D  Foundation of Leadership Course Module D
0 units; 16 hours Laboratory
Prerequisite: DMCP 510C.
Repeatability: May be taken a total of 20 times.
Demonstrate 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 511A  Team Self-Management Module A
0 units; 9 hours Laboratory
Prerequisite: DMCP 510D.
Repeatability: May be taken a total of 20 times.
Introduces the theory and practice of team self-management and its application in work organizations: exploring the connections among purpose, intentions, and behaviors to develop the self-management skills to successfully attain goals.

DMCP 511B  Team Self-Management Module B
0 units; 9 hours Laboratory
Prerequisite: DMCP 511A.
Repeatability: May be taken a total of 20 times.
Introduces the theory and practice of team self-management and its application in work organizations: evaluating task and time management approaches, investigating team development, developing ability to formulate questions from readings, appraising self-talk and developing affirmations, writing a lifeline paper reframing life, formulating future wheels analyzing use of time, and developing scenarios of the student’s future.

DMCP 511C  Team Self-Management Module C
0 units; 9 hours Laboratory
Prerequisite: DMCP 511B.
Repeatability: May be taken a total of 20 times.
Introduces the theory and practice of team self-management and its application in work organizations: developing note-taking skills, setting and developing goals, analyzing the role of and managing stress, diagnosing one’s procrastination, and utilizing advanced mindfulness techniques.

DMCP 511D  Team Self-Management Module D
0 units; 9 hours Laboratory
Prerequisite: DMCP 511C.
Repeatability: May be taken a total of 20 times.
Introduces the theory and practice of team self-management and its application in work organizations: evaluating how the body can help analyze goals, formulating family history, exploring forgiveness, creating a vision of the future, and applying the tools of team self-management.
General Education Requirements  21 Units
Core Courses (25.5 units)  Units
DM 1  Introduction to Digital Media  4
DM 2  Digital Publishing I  4
DM 4  Digital Graphics  4
DM 5  Design for Digital Media  4
DM 6  Digital Publishing II  4
DM 8  Creative Portfolios  1.5
DM 12  Photoshop Techniques I  4

DM 5  Design for Digital Media  4
DM 12  Photoshop Techniques I  4
DM 8  Creative Portfolios  1.5
DM 12  Photoshop Techniques I  4

Digital Media Approved Electives (7 units)  Units
AP 6  Introduction to Digital Photography  1 - 3
AP 9A  Beginning Photography  3
AP 14  Introduction to Video Art  1 - 3
AP 15  History of Photography  3
AP 35  Photography, New Media, and Social Change  3
or
AP 35H  Honors: Photography, New Media, and Social Change  3
AP 45  Contemporary Trends in Photography  3
AP 46A  Digital Photography I  3
AP 46B  Digital Photography II  3
ART 2A  Drawing and Composition I  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 95A  Survey of Digital Fabrication for Studio Arts  1 - 3
BUS 50  Advertising for Small Business  3
BUS 89  Starting & Operating an eCommerce Business  3
CABT 108  Social Media for Business  3 - 4
CABT 157  Business and Technical Writing  3
CABT 10  Communication Process  3

Total Units  31.5 - 34.5

General Electives (6.5 units)  Units
Any course numbered 1-199  6.5

Digital Publishing Certificate of Achievement

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 and interactive publishing examples. (Global Awareness, Critical Thinking, Communication)

Core Courses (25.5 units)  Units
DM 1  Introduction to Digital Media  4
DM 2  Digital Publishing I  4
DM 4  Digital Graphics  4
DM 5  Design for Digital Media  4
DM 6  Digital Publishing II  4
DM 8  Creative Portfolios  1.5
DM 12  Photoshop Techniques I  4
DM 57  Social Media and Self-Promotion  2
DM 60  Web Design with HTML and CSS  4
DM 61  Responsive Web Design  4
DM 62  Web Publishing III: Servers, Scripts, and Advanced CSS  4
DM 70  Web Design Using Dreamweaver  4
DM 72  Fundamentals of 2D Animation  4
DM 79  Creative Careers: Discovering Self Directed Pathways  3
DM 80  The Studio  3
DM 190AZZ  Special Topics in Digital Media  0.5 - 4
DM 199C  Career Work Experience Education  0.5 - 4
ENGL 49A  The Language of Film: Film History  3
ENGL 49B  The Language of Film: Special Topics in Film  3
ETECH 40  3D Animation  3
JOURN 54A  Newspaper Production: Reporting and Photography  1
JOURN 54B  Newspaper Production: Editing  1
JOURN 54C  Newspaper Production: Management  1
SOC 10  Popular Culture  3

Total Units  60
Web Media A.S. Degree

The Web Media program provides instruction in the principles, concepts, tools, and techniques involved in the design, development, production, and publication of interactive web media. The courses are designed to prepare students for entry-level positions in the fields of planning, designing, producing and developing web sites and related interactive screen-based media for various devices. Students may also earn credit to transfer to upper division programs.

Learning Outcome:
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)

*A.S. General Education 21 Units

Core Courses (25.5 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>DM 1</td>
<td>Introduction to Digital Media</td>
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<td>Digital Graphics</td>
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<td>Creative Portfolios</td>
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<tr>
<td>DM 12</td>
<td>Photoshop Techniques I</td>
</tr>
<tr>
<td>DM 60</td>
<td>Web Design with HTML and CSS</td>
</tr>
<tr>
<td>DM 72</td>
<td>Fundamentals of 2D Animation</td>
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</tbody>
</table>

Approved Electives (13 Units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 4</td>
<td>Beginning Design: Design and Color</td>
</tr>
<tr>
<td>BUS 89</td>
<td>Starting &amp; Operating an eCommerce Business</td>
</tr>
<tr>
<td>DM 11</td>
<td>Digital Illustration</td>
</tr>
<tr>
<td>DM 13</td>
<td>Photoshop Techniques II</td>
</tr>
<tr>
<td>DM 34</td>
<td>Introduction to Video Production</td>
</tr>
<tr>
<td>DM 61</td>
<td>Responsive Web Design</td>
</tr>
<tr>
<td>DM 70</td>
<td>Web Design using Dreamweaver</td>
</tr>
<tr>
<td>DM 80</td>
<td>The Studio</td>
</tr>
</tbody>
</table>

Electives: 0.5 unit

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>(Any Course numbered 1-199)</td>
<td>5</td>
</tr>
</tbody>
</table>

Total Units 60

Web Media Certificate of Achievement

Learning Outcome:
1. 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)

Core Courses (25.5 units)

<table>
<thead>
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<tr>
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</tbody>
</table>

Other Required Courses (6-9 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 100</td>
<td>Elements of Writing</td>
</tr>
<tr>
<td>ESL 100</td>
<td>High Advanced Academic ESL</td>
</tr>
<tr>
<td>ENGL 1A/1AH/1AMC/1AMCH</td>
<td>3</td>
</tr>
<tr>
<td>CABT 157</td>
<td>Business and Technical Writing</td>
</tr>
<tr>
<td>COMM 2</td>
<td>Group Discussion</td>
</tr>
<tr>
<td>COMM 10</td>
<td>Communication Process</td>
</tr>
</tbody>
</table>

Total Units 31.5-34.5

Web Design Certificate of Achievement

Learning Outcome:
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)

Core Courses (29.5 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>DM 1</td>
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<td>DM 12</td>
<td>Photoshop Techniques I</td>
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<td>DM 60</td>
<td>Web Design with HTML and CSS</td>
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Other Required Courses (6-9 units)

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<td>ENGL 100</td>
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<td>ENGL 1A/1AH/1AMC/1AMCH</td>
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<td>COMM 2</td>
<td>Group Discussion</td>
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<td>COMM 10</td>
<td>Communication Process</td>
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</tbody>
</table>

Total Units 35.5-38.5
## Web Development Certificate of Achievement

**Learning Outcome:**
1. 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 (28 units)

<table>
<thead>
<tr>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td>DM 1</td>
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<td>DM 72</td>
<td>Fundamentals of 2D Animation</td>
</tr>
</tbody>
</table>

### Other Required Courses (6-9 units)

<table>
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<tr>
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<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 100</td>
<td>Elements of Writing</td>
</tr>
<tr>
<td>ESL 100</td>
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<tr>
<td>ENGL 1A/1AH/1AMC/1AMCH</td>
<td>3</td>
</tr>
<tr>
<td>CABB 157</td>
<td>Business and Technical Writing</td>
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<tr>
<td>COMM 2</td>
<td>Group Discussion</td>
</tr>
<tr>
<td>COMM 10</td>
<td>Communication Process</td>
</tr>
</tbody>
</table>

**Total Units:** 34-37

## Animation Skills Certificate

**Learning Outcome:**
1. Demonstrate the ability to research, develop, create and produce animated motion media for diverse forms of presentation.

### Required Courses (16.5 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>DM 1</td>
<td>Introduction to Digital Media</td>
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<tr>
<td>DM 8</td>
<td>Creative Portfolios</td>
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<td>DM 34</td>
<td>Introduction to Video Production</td>
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<tr>
<td>DM 72</td>
<td>Fundamentals of 2D Animation</td>
</tr>
<tr>
<td>ETECH 40</td>
<td>3D Animation</td>
</tr>
</tbody>
</table>

**Total Units:** 16.5

## Cinema Arts Skills Certificate

**Learning Outcome:**
1. Demonstrate the ability to research, plan, direct, and produce cinematic pieces for diverse forms of presentation.

### Required Courses (17 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AP 55</td>
<td>The Moving Image: Experimental Film, Video, and New Media Art</td>
</tr>
<tr>
<td>DM 1</td>
<td>Introduction to Digital Media</td>
</tr>
<tr>
<td>DM 34</td>
<td>Introduction to Video Production</td>
</tr>
<tr>
<td>ENGL 49A</td>
<td>The Language of Film: Film History</td>
</tr>
<tr>
<td>TA 17</td>
<td>Introduction to Directing</td>
</tr>
</tbody>
</table>

**Total Units:** 17

## Creative Careers - Discovering Self-Directed Pathways Skills Certificate

**Learning Outcome:**
1. Research and analyze ways to create impact and develop a livelihood in all visual, applied, and performing arts disciplines by identifying your WHY and focusing on unique, self-directed, non-traditional, and entrepreneurial pathways.

### Required Courses (17.5 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AH 79</td>
<td>Creative Careers - Discovering Self-Directed Pathways</td>
</tr>
<tr>
<td>or AP 79</td>
<td>Creative Careers - Discovering Self-Directed Pathways</td>
</tr>
<tr>
<td>or ART 79</td>
<td>Discovering Self-Directed Pathways</td>
</tr>
<tr>
<td>or DANCE 79</td>
<td>Creative Careers - Discovering Self-Directed Pathways</td>
</tr>
<tr>
<td>or DM 79</td>
<td>Creative Careers - Discovering Self-Directed Pathways</td>
</tr>
<tr>
<td>or MUS 79</td>
<td>Creative Careers - Discovering Self-Directed Pathways</td>
</tr>
<tr>
<td>or TA 79</td>
<td>Creative Careers - Discovering Self-Directed Pathways</td>
</tr>
<tr>
<td>and BUS 88</td>
<td><em>Starting and Operating a New Small Business</em></td>
</tr>
<tr>
<td>or Any AH/AP/ART/DANCE/DM/MUS/TA course</td>
<td>1-99</td>
</tr>
</tbody>
</table>

**Total Units:** 7-10

## Graphic Imaging Skills Certificate

**Learning Outcome:**
1. Create and produce images for use in graphic design & media arts.

### Required Courses (17 units)

<table>
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<tr>
<td>DM 11</td>
<td>Digital Illustration</td>
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<tr>
<td>or DM 13</td>
<td>Photoshop Techniques II</td>
</tr>
<tr>
<td>DM 12</td>
<td>Photoshop Techniques I</td>
</tr>
</tbody>
</table>

**Total Units:** 17

## Motion Graphics Skills Certificate

**Learning Outcome:**
1. Demonstrate the ability to research, plan, design, produce and compose Motion graphics, title sequences, and effects for time-based motion media for diverse forms of presentation.

### Required Courses (18 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>DM 1</td>
<td>Introduction to Digital Media</td>
</tr>
<tr>
<td>DM 34</td>
<td>Introduction to Video Production</td>
</tr>
<tr>
<td>DM 36</td>
<td>Motion Graphics and Video Compositing</td>
</tr>
<tr>
<td>ART 27</td>
<td>Graphic Design</td>
</tr>
<tr>
<td>ART 28</td>
<td>Lettering and Typography</td>
</tr>
</tbody>
</table>

**Total Units:** 18
Motion Media Skills Certificate
Learning Outcome:
1. Create and produce time-based motion media for graphic design and media arts projects.

Required Units
DM 1 Introduction to Digital Media ............................... 4
DM 4 Digital Graphics ...................................................... 4
DM 8 Creative Portfolios .................................................... 1.5
DM 34 Introduction to Video Production ............................ 4
or
DM 35 Intermediate Video Production ............................ 4
DM 72 Fundamentals of 2D Animation ............................ 4

Total Units 17.5

Publication Design Skills Certificate
Learning Outcome:
1. Design, layout, and produce professional graphic design and media arts projects for clients, portfolios, and self-promotion.

Required Units
DM 1 Introduction to Digital Media ............................... 4
DM 2 Digital Publishing I .................................................. 4
DM 4 Digital Graphics ...................................................... 4
DM 6 Digital Publishing II .................................................. 4
DM 8 Creative Portfolios .................................................... 1.5

Total Units 17.5

Video Production Skills Certificate
Learning Outcome:
1. Demonstrate the ability to research, write, direct, and produce video pieces for diverse forms of presentation.

Required Units
DM 1 Introduction to Digital Media ............................... 4
DM 34 Introduction to Video Production ............................ 4
DM 35 Intermediate Video Production ............................ 4
ENGL 12C Creative Writing: Film ..................................... 3
or
TA 17 Introduction to Directing ......................................... 3
TA 21 Acting for the Camera ............................................. 3

Total Units 18

Web Production Skills Certificate
Learning Outcomes:
1. Use current techniques to develop and publish websites compliant with content and accessibility guidelines.

Required Courses Units
DM 1 Introduction to Digital Media ............................... 4
DM 60 Web Design with HTML and CSS ............................ 4
DM 61 Responsive Web Design .......................................... 4
DM 70 Web Design using Dreamweaver ............................. 4
or
DM 72 Fundamentals of 2D Animation ............................ 4

Total Units 16

Website Design Skills Certificate
Learning Outcomes
1. Design websites using web development tools.

Required Courses Units
DM 1 Introduction to Digital Media ............................... 4
DM 4 Digital Graphics ...................................................... 4
DM 60 Web Design with HTML and CSS ............................ 4
DM 5 Design for Digital Media ........................................... 4
or
DM 70 Web Design using Dreamweaver ............................. 4
or
DM 72 Fundamentals of 2D Animation ............................ 4

Total Units 16

Digital Media Courses
DM 1 Introduction to Digital Media
4 units; 3 hours Lecture, 2 hours Laboratory
Repeatability: May be taken a total of 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. Materials fees may apply.
Transfer Credit: Transfers to CSU; UC. C-ID: ARTS 250

DM 2 Digital Publishing I
4 units; 3 hours Lecture, 2 hours Laboratory
Prerequisite: DM 1 or equivalent skills.
Repeatability: May be taken a total of 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 may apply.
Transfer Credit: Transfers to CSU.

DM 4 Digital Graphics
4 units; 3 hours Lecture, 2 hours Laboratory
Prerequisite: DM 1 or equivalent skills.
Repeatability: May be taken a total of 1 time.
Introduces creation and editing of digital graphics, illustrations, photographs, and applied color theory for pre-press production and screen-based media. May be offered in a Distance-Learning Format. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC.
DM 5  |  **Design for Digital Media**  
4 units; 3 hours Lecture, 2 hours Laboratory  
Prerequisite: DM 1.  
Repeatability: May be taken a total of 1 time.  
Explores the visual design process for digital media focusing on creative problem solving for both print and the web. Topics include understanding design principles and elements, exploring fundamental typographic principles, and using industry standard graphic design software to visually express ideas. May be offered in a Distance-Learning Format.  
*Transfer Credit*: Transfers to CSU.

DM 6  |  **Digital Publishing II**  
4 units; 3 hours Lecture, 2 hours Laboratory  
Prerequisite: DM 2 and DM 4 or equivalent skills.  
Repeatability: May be taken a total of 1 time.  
Builds on experience in Prerequisite disciplines to apply advanced InDesign techniques for professional typography, graphic design, color theory, page layout, imagery, and visual communication principles to create, design, and produce original promotional materials for diverse cross-media projects. May be offered in a Distance-Learning Format. Materials fees may apply.  
*Transfer Credit*: Transfers to CSU.

DM 8  |  **Creative Portfolios**  
1.5 units; 1.5 hours Lecture, 1 hour Laboratory  
Prerequisite: DM 2 and DM 4 and DM 5 or equivalent skills.  
Repeatability: May be taken a total of 1 time.  
*Transfer Credit*: Transfers to CSU.

DM 11  |  **Digital Illustration**  
4 units; 3 hours Lecture, 2 hours Laboratory  
Prerequisite: DM 4 or equivalent skills.  
Repeatability: May be taken a total of 1 time.  
Prepresents use of vector-based illustration software for digital publishing, web graphics, and screen media projects. May be offered in a Distance-Learning Format. Materials fee may apply.  
*Transfer Credit*: Transfers to CSU.

DM 12  |  **Photoshop Techniques I**  
4 units; 3 hours Lecture, 2 hours Laboratory  
Prerequisite: DM 4 or equivalent skills.  
Repeatability: May be taken a total of 1 time.  
Covers intermediate Photoshop techniques and topics including: image manipulation, adjustment layers, resolution, masks, channels, retouching, and colorization. May be offered in a Distance-Learning Format. Materials fee may apply.  
*Transfer Credit*: Transfers to CSU.

DM 13  |  **Photoshop Techniques II**  
4 units; 3 hours Lecture, 2 hours Laboratory  
Prerequisite: DM 12 or equivalent skills.  
Repeatability: May be taken a total of 1 time.  
Covers advanced Photoshop techniques and topics including: levels and curves, alpha channels, filters, vector masks, lighting effects, and perspective. May be offered in a Distance-Learning Format. Materials fee may apply.  
*Transfer Credit*: Transfers to CSU.

DM 34  |  **Introduction to Video Production**  
4 units; 3 hours Lecture, 2 hours Laboratory  
Prerequisite: DM 1 or equivalent skills.  
Recommended Preparation: DM 4 or equivalent skills.  
Repeatability: May be taken a total of 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. Materials fee may apply.  
*Transfer Credit*: Transfers to CSU; UC.

DM 35  |  **Intermediate Video Production**  
4 units; 3 hours Lecture, 2 hours Laboratory  
Prerequisite: DM 34 or equivalent skills.  
Repeatability: May be taken a total of 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. May be offered in a Distance-Learning Format.  
*Transfer Credit*: Transfers to CSU.

DM 36  |  **Motion Graphics and Video Compositing**  
4 units; 3 hours Lecture, 2 hours Laboratory  
Prerequisite: DM 34 or equivalent experience.  
Repeatability: May be taken a total of 1 time.  
Explores video compositing techniques, motion media design, and 2D-3D animation. May be offered in a Distance-Learning Format.  
*Transfer Credit*: Transfers to CSU.

DM 55  |  **Overview of Web Design**  
1.5 units; 1.5 hours Lecture, 1 hour Laboratory  
Recommended Preparation: DM 1.  
Repeatability: May be taken a total of 1 time.  
Explores web design concepts such as the structure and formatting of web pages, content management systems, image preparation, web typography, search engine optimization, choosing a web host, and online marketing. May be offered in a Distance-Learning Format.  
*Transfer Credit*: Transfers to CSU.
DM 56  Web Design Using WordPress
2 units; 1.5 hours Lecture, 1 hour Laboratory
Prerequisite: DM 1 or equivalent skills.
Repeatability: May be taken a total of 1 time.
Explores WordPress, a content management system (CMS) used to create and manage web pages. Course covers image preparation, web typography, search engine optimization, and web hosting. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

DM 57  Social Media and Self-promotion
2 units; 1.5 hours Lecture, 1 hour Laboratory
Repeatability: May be taken a total of 1 time.
Introduces students to various forms of social media tools and technology and how to use these tools strategically for self-promotion and marketing. Students will learn about leading social media platforms and tools, who uses them, and how they have transformed the way we interconnect and interact with the world, both personally and professionally. Students will be expected to apply their knowledge by participating on different social media platforms through interactive class projects. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

DM 60  Web Design with HTML and CSS
4 units; 3 hours Lecture, 2 hours Laboratory
Prerequisite: DM 1 or equivalent skills.
Repeatability: May be taken a total of 1 time.
Presents planning and production of web sites including: Text, Graphics, Hand-coded HTML, Basic Cascading Style Sheets (CSS), and HTML and CSS Validation. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

DM 61  Responsive Web Design
4 units; 3 hours Lecture, 2 hours Laboratory
Prerequisite: DM 60.
Repeatability: May be taken a total of 1 time.
Presents planning, design, and production of graphics and page layouts for web sites using hand-coded HTML and CSS, including image creation and editing, color, conversion, compression, web typography, rollovers, tables, validation, and design considerations specific to online graphics. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

DM 67  Web Design Using Dreamweaver
4 units; 3 hours Lecture, 2 hours Laboratory
Prerequisite: DM 1 and DM 60.
Repeatability: May be taken a total of 1 time.
Applies Dreamweaver, WordPress, and other industry standard tools and methods for responsive web design and production, including design principles of information architecture, color, layout, and typography. Students must know HTML and be able to create and edit graphics. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

DM 70  Fundamentals of 2D Animation
4 units; 3 hours Lecture, 2 hours Laboratory
Prerequisite: DM 1.
Repeatability: May be taken a total of 1 time.
Teaches traditional and digital techniques used to create 2D animated imagery, design, and narrative stories. Emphasis on movement, timing, and expression. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

DM 72  Creative Careers-Discovering Self-Directed Pathways
3 units; 3 hours Lecture, 1 hour Laboratory
Repeatability: May be taken a total of 1 time.
Investigates creative career opportunities in all visual, applied, and performing arts disciplines, with a focus on unique, self-directed, non-traditional, and entrepreneurial pathways and the academic and life choices necessary to realize such opportunities. May be offered in a Distance-Learning Format. Materials fee may apply. AH 79, ART 79, AP 79, DANCE 79, DM 79, MUS 79, and TA 79 are cross listed courses. Students may enroll in only one course for credit.
Transfer Credit: Transfers to CSU.

DM 80  The Studio
3 units; 2 hours Lecture, 3 hours Laboratory
Prerequisite: DM 2, DM 4
Recommended Preparation: DM 34, DM 60.
Repeatability: May be taken a total of 1 time.
Engages in best practices for collaborative media design, and production work experience in the creation and coordination of graphic, interactive, and motion media projects—from intake to delivery. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

DM 190A-ZZ  Special Topics in Digital Media
0.5 – 4 units; 0.5 – 4 hours Lecture, 1.5 – 12 hours Laboratory
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.
Early Childhood Education A.S.-T Transfer Degree

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, or a “P” if the course is taken on a “pass/no pass” basis. 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.

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.

CSU or IGETC for CSU General Education Requirements 37-39 Units

Core Courses (25 Units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE 31</td>
<td>Child Growth and Development 3</td>
</tr>
<tr>
<td>ECE 32</td>
<td>Child, Family and Community 3</td>
</tr>
<tr>
<td>ECE 34</td>
<td>Observation and Assessment Methods in Early Childhood Education 3</td>
</tr>
<tr>
<td>ECE 51</td>
<td>Principles of Working with Young Children 3</td>
</tr>
<tr>
<td>ECE 52</td>
<td>Teaching in a Diverse Society 3</td>
</tr>
<tr>
<td>ECE 53</td>
<td>Introduction to Curriculum for the Young Child 3</td>
</tr>
<tr>
<td>ECE 54</td>
<td>Early Childhood Education Practicum 4</td>
</tr>
<tr>
<td>ECE 59</td>
<td>Health, Safety, and Nutrition Issues in the Child Care Setting 3</td>
</tr>
</tbody>
</table>

Electives (0-2 Units)

Any course numbered 1-99. 0 - 2

Note: ECE 31 and 32 are also general education courses.

Total Units 60

*Denotes courses that are part of the Curriculum Alignment Project (CAP) 8 Lower-Division Transfer Program

Early Childhood Education A.S. Degree

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.

A.S. General Education 21 Units

Core Courses (34.5)

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<th>Course</th>
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<tr>
<td>ECE 31</td>
<td>* Child Growth and Development 3</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>ECE 131</td>
<td>Child Growth and Development 3</td>
</tr>
<tr>
<td>ECE 32</td>
<td>* Child, Family and Community 3</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>ECE 142</td>
<td>Niño, familia, y comunidad 3</td>
</tr>
</tbody>
</table>

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.
ECE 34  * Observation and Assessment Methods in Early Childhood Education ...........................................3
ECE 51  * Principles of Working with Young Children .........................................................3
ECE 52  * Teaching in a Diverse Society ..........................................................3
ECE 53  * Introduction to Curriculum for the Young Child .........................................................3
ECE 53L Curriculum Materials Lab .........................................................0.5
ECE 54  * Early Childhood Education Practicum ..........................................................4
ECE 59  * Health, Safety, and Nutrition Issues in the Child Care Setting ...........................................3
ECE 135 Infant and Toddler Program Development ..........................................................4
ECE 146 The Child with Special Needs in the Child Care Program .................................................2
ECE 158 Working With Families ..........................................................3
Core: Special Curriculum Topics (Take 1 or more units from the following): Units
ECE 156A Curriculum for the Young Child:
  Life Science ........................................................................1 - 3
or
ECE 156B Curriculum for the Young Child:
  Physical Science ....................................................................1 - 3
or
ECE 156C Curriculum for the Young Child:
  Social Knowledge ..................................................................1 - 3
or
ECE 156D Large Motor and Movement Curriculum .................................................................1 - 3
or
ECE 156E Exploring Music with the Young Child .......................................................................1 - 3
or
ECE 156G Circle Time Activities ............................................................................................1 - 3
or
ECE 156H Cooking Curriculum for Young Children .................................................................1 - 3
or
ECE 156J Superhero and Weapon Play .......................................................................................1 - 3
or
ECE 156K Exploring Art with the Young Child ...........................................................................1 - 3
or
ECE 156L Fostering First and Second Language Development .................................................1 - 3
or
ECE 156M Early Literacy Foundations for Young Children ......................................................1 - 3
or
ECE 156N Early Math Foundations for Young Children ............................................................1 - 3
Electives (3.5 Units) Units
ECE 133 Understanding Infant Development ..............................................................................1 - 3
ECE 134 Understanding Toddler Development ...........................................................................1 - 3
ECE 134C Curriculum with Toddlers .........................................................................................1 - 3
ECE 134E Nurturing Environments for Infants and Toddlers .......................................................0.5 - 3
ECE 134SN Infants and Toddlers with Special Needs in the Childcare Program .........................1 - 2
ECE 145 Peace Education and Children's Literature .................................................................1 - 3
Prospective ECE majors are encouraged to consult an ECE instructor regarding recommended elective courses.

Total Units 60
*Denotes courses that are part of the Curriculum Alignment Project (CAP) 8 Lower-Division Transfer Program

Teaching Certificate of Achievement

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.

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 units) 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 34  *Observation and Assessment Methods in Early Childhood Education ...................3
ECE 51 * Principles of Working with Young Children .............................................................3
ECE 52* Teaching in a Diverse Society ......................................................................................3
ECE 53* Introduction to Curriculum for the Young Child ........................................................3
ECE 53L Curriculum Materials Lab .........................................................................................0.5
ECE 54* Early Childhood Education Practicum .........................................................................4
ECE 59* Health, Safety, and Nutrition Issues in the Child Care Setting ..................................3
ECE 135 Infant and Toddler Program Development ................................................................4
ECE 146 The Child with Special Needs in the Child Care Program .........................................2
ECE 158 Working With Families .............................................................................................3
Core: Special Curriculum Topics (Take 1 or more units from the following): Units
ECE 156A Curriculum for the Young Child:
  Life Science ........................................................................1 - 3
or
ECE 156B Curriculum for the Young Child:
  Physical Science ....................................................................1 - 3
or
ECE 156C Curriculum for the Young Child:
  Social Knowledge ..................................................................1 - 3
or
ECE 156D Large Motor and Movement Curriculum .................................................................1 - 3
or
ECE 156E Exploring Music with the Young Child .......................................................................1 - 3
or
ECE 156F Exploring Art with the Young Child ........................................................................1 - 3
or
ECE 156G Circle Time Activities ............................................................................................1 - 3
or
ECE 156H Cooking Curriculum for Young Children .................................................................1 - 3
or
ECE 156J Superhero and Weapon Play .......................................................................................1 - 3
or
ECE 156K Exploring Art with the Young Child ...........................................................................1 - 3
or
ECE 156L Fostering First and Second Language Development .................................................1 - 3
or
ECE 156M Early Literacy Foundations for Young Children ......................................................1 - 3
or
ECE 156N Early Math Foundations for Young Children ............................................................1 - 3

Social Knowledge ..............................................................................1 - 3

Total Units 60
*Denotes courses that are part of the Curriculum Alignment Project (CAP) 8 Lower-Division Transfer Program
or
ECE 156G Circle Time Activities ........................................... 1 - 3
or
ECE 156H Cooking Curriculum for Young Children ............ 1 - 3
or
ECE 156J Superhero and Weapon Play .................................. 1 - 3
or
ECE 156K Exploring Art with the Young Child...................... 1 - 3
or
ECE 156L Fostering First and Second Language Development ........................................... 1 - 3
or
ECE 156M Early Literacy Foundations for Young Children .......... 1 - 3
or
ECE 156N Early Math Foundations for Young Children ...... 1 - 3

Other Required Courses (3-6 Units) Units
ENGL 100 Elements of Writing............................................... 3
or
ESL 100 High Advanced Academic ESL ................................ 4 - 6
or
ENGL 1A/1AH/1AMC/1AMCH ................................................. 3

Total Units 38.5 - 41.5

*Denotes courses that are part of the Curriculum Alignment Project (CAP) 8 Lower-Division Transfer Program

ECE Administration Certificate of Achievement

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.

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 Courses Units
ECE Teaching Certificate of Achievement 38.5

Other Required Courses Units
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

Anti-Bias Curriculum Certificate of Achievement

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
Any 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

Other Required Courses (3-6 Units) Units
ENGL 100 Elements of Writing............................................... 3
or
ESL 100 High Advanced Academic ESL ................................ 4 - 6
or
ENGL 1A/1AH/1AMC/1AMCH ................................................. 3

Total Units 33-36

Children's Literacy Curriculum Certificate of Achievement

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.

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.

Cabrillo and State Regulations (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 Courses (6 Units)  
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</tr>
</thead>
<tbody>
<tr>
<td>ECE 134C</td>
<td>Curriculum with Toddlers</td>
<td>1 - 3</td>
</tr>
<tr>
<td>ECE 145</td>
<td>Peace Education and Children’s Literature</td>
<td>3</td>
</tr>
<tr>
<td>ECE 156L</td>
<td>Fostering First and Second Language Development</td>
<td>1 - 3</td>
</tr>
<tr>
<td>ECE 156M</td>
<td>Early Literacy Foundations for Young Children</td>
<td>1 - 3</td>
</tr>
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### Other Required Courses (3-6 Units)  
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<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>ESL 100</td>
<td>High Advanced Academic ESL</td>
</tr>
<tr>
<td>or</td>
<td>ENGL 1A/1AH/1AMC/1AMCH</td>
<td>3</td>
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</tbody>
</table>

**Total Units:** 33-36

### Curriculum Planning Certificate of Achievement

#### 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.

#### Cabrillo and State Requirements

##### (24 units to include the following)  

<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>
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</tr>
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</tr>
<tr>
<td>ECE 51</td>
<td>Principles of Working with Young Children</td>
<td>3</td>
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<td>ECE 53</td>
<td>Introduction to Curriculum for the Young Child</td>
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</tbody>
</table>

Any ECE courses numbered 1-199: 12

### Required Courses (6 Units)  

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>ECE 145</td>
<td>Peace Education and Children’s Literature</td>
<td>1 - 3</td>
</tr>
<tr>
<td>ECE 156A</td>
<td>Curriculum for the Young Child: Life Science</td>
<td>1 - 3</td>
</tr>
<tr>
<td>ECE 156B</td>
<td>Curriculum for the Young Child: Physical Science</td>
<td>1 - 3</td>
</tr>
<tr>
<td>ECE 156C</td>
<td>Curriculum for the Young Child: Social Knowledge</td>
<td>1 - 3</td>
</tr>
<tr>
<td>ECE 156D</td>
<td>Large Motor and Movement Curriculum</td>
<td>1 - 3</td>
</tr>
<tr>
<td>ECE 156E</td>
<td>Exploring Music with the Young Child</td>
<td>1 - 3</td>
</tr>
<tr>
<td>ECE 156G</td>
<td>Circle Time Activities</td>
<td>1 - 3</td>
</tr>
<tr>
<td>ECE 156H</td>
<td>Cooking Curriculum for Young Children</td>
<td>1 - 3</td>
</tr>
<tr>
<td>ECE 156J</td>
<td>Superhero and Weapon Play</td>
<td>1 - 3</td>
</tr>
<tr>
<td>ECE 156K</td>
<td>Exploring Art with the Young Child</td>
<td>1 - 3</td>
</tr>
<tr>
<td>ECE 156L</td>
<td>Fostering First and Second Language Development</td>
<td>1 - 3</td>
</tr>
<tr>
<td>ECE 156M</td>
<td>Early Literacy Foundations for Young Children</td>
<td>1 - 3</td>
</tr>
<tr>
<td>ECE 156N</td>
<td>Early Math Foundations for Young Children</td>
<td>1 - 3</td>
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</tbody>
</table>

#### Other Required Courses (3-6 Units)  

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>ENGL 100</td>
<td>Elements of Writing</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>ESL 100</td>
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</tr>
<tr>
<td>or</td>
<td>ENGL 1A/1AH/1AMC/1AMCH</td>
<td>3</td>
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</table>

**Total Units:** 33-36

### Infant/Toddler Care Certificate of Achievement

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.

#### 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.

#### Cabrillo and State Requirements

##### (24 units to include the following)  

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Any ECE courses numbered 1-199: 12

##### Required - 6 units of specialized coursework from below:  

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<thead>
<tr>
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<tbody>
<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>
</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 139AZ</td>
<td>Special Topics in Infant/Toddler Development and Care</td>
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### Other Required Courses (3-6 Units)  

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**Total Units:** 33-36

### Working with Culturally Diverse Families Certificate of Achievement

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 Requirements

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AND 2 units from courses below

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</table>

**Total Units:** 33-36

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174 | Early Childhood Education
Spanish/English Early Childhood Teaching Skills Certificate

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
- 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
- ENGL 100 Elements of Writing ........................................ 3
- or
- ESL 100 High Advanced Academic ESL .............. 4-6
- or
- ENGL 1A/1AH/1AMC/1AMCH ........................................ 3

Total Units 33-36

Bilingual Spanish English Teaching Certificate of Achievement

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.

Required Courses
- 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
- ENGL 100 Elements of Writing ........................................ 3
- or
- ESL 100 High Advanced Academic ESL .............. 4-6
- or
- SPAN 4 Intermediate Spanish II ..................... 5
- or
- SPAN 17 Elementary Spanish for Spanish Speakers II .... 4

Total Units 31 - 35

Early Childhood Education Courses

ECE 31 Child Growth and Development
3 units; 3 hours Lecture
Co-requisite: For sections taught in Spanish or in a Bilingual Format: Concurrent enrollment in an appropriate ESL course.
Repeatability: May be taken a total of 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 a Distance-Learning 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

ECE 32 Child, Family and Community
3 units; 3 hours Lecture
Co-requisite: ENGL 255; For sections taught in Spanish or in a Bilingual Format: Concurrent enrollment in an appropriate ESL course.
Repeatability: May be taken a total of 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
ECE 33  Child Development: School Age and Adolescence
2 units; 2 hours Lecture
Co-requisite: For sections taught in Spanish or in a Bilingual Format: Concurrent enrollment in an appropriate ESL course.
Recommended Preparation: ECE 31 or ECE 131.
Repeatability: May be taken a total of 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.

ECE 34  Observation and Assessment Methods in Early Childhood Education
3 units; 3 hours Lecture
Prerequisite: ECE 31 or ECE 131.
Co-requisite: For sections taught in Spanish or in a Bilingual Format: Concurrent enrollment in an appropriate ESL course.
Repeatability: May be taken a total of 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

ECE 51  Principles of Working with Young Children
3 units; 3 hours Lecture
Prerequisite: ECE 31 or ECE 131.
Co-requisite: For sections taught in Spanish or in a Bilingual Format: Concurrent enrollment in an appropriate ESL course.
Repeatability: May be taken a total of 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

ECE 52  Teaching in a Diverse Society
3 units; 3 hours Lecture
Prerequisite: ECE 32 or ECE 142.
Repeatability: May be taken a total of 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
Co-requisite: ECE 53L; For sections taught in Spanish or in a Bilingual Format: Concurrent enrollment in an appropriate ESL course.
Repeatability: May be taken a total of 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; 0 hour Lecture, 1 hour Laboratory
Hybrid Requisite: Completion of or concurrent enrollment in ECE 53.
Repeatability: May be taken a total of 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.
Hybrid Requisite: Completion of or concurrent enrollment in ECE 51 and ECE 53.
Recommended Preparation: COMM 6.
Repeatability: May be taken a total of 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 relations. 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**  
1 – 3 units; 3 – 9 hours Laboratory  
Hybrid Requisite: Completion of or concurrent enrollment in ECE 54.  
Repeatability: May be taken a total of 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  
Co-requisite: 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.  
Repeatability: May be taken a total of 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: Non-transferable.*

ECE 128  
**Intermediate Child Care Practicum**  
2 – 3 units; 6 – 9 hours Laboratory  
Prerequisite: ECE 54 or equivalent skills.  
Hybrid Requisite: Completion of or concurrent enrollment in ECE 158. Recommended Preparation: ECE 34; ECE 135.  
Repeatability: May be taken a total of 1 time.  
Offers supervised field experience for students who have completed one semester of the Early Childhood Education Practicum.  
*Transfer Credit: Non-transferable.*

ECE 131  
**Child Growth and Development**  
3 units; 3 hours Lecture  
Co-requisite: For sections taught in Spanish or in a Bilingual Format: Concurrent enrollment in an appropriate ESL course. Recommended Preparation: ESL 201; SPAN 16.  
Repeatability: May be taken a total of 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: Non-transferable.*

ECE 133  
**Understanding Infant Development**  
1 – 3 units; 1 – 3 hours Lecture  
Co-requisite: For sections taught in Spanish or in a Bilingual Format: Concurrent enrollment in an appropriate ESL course.  
Repeatability: May be taken a total of 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. May be offered in a Distance-Learning Format.  
*Transfer Credit: Non-transferable.*

ECE 134  
**Understanding Toddler Development**  
1 – 3 units; 1 – 3 hours Lecture  
Co-requisite: For sections taught in Spanish or in a Bilingual Format: Concurrent enrollment in an appropriate ESL course. Recommended Preparation: ECE 135.  
Repeatability: May be taken a total of 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.  
*Transfer Credit: Non-transferable.*

ECE 134C  
**Curriculum with Toddlers**  
1 – 3 units; 1 – 3 hours Lecture  
Co-requisite: For sections taught in Spanish or in a Bilingual Format: Concurrent enrollment in an appropriate ESL course. Recommended Preparation: ECE 31 or ECE 131 and/or current experience as a caregiver for infants and toddlers.  
Repeatability: May be taken a total of 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.  
*Transfer Credit: Non-transferable.*

ECE 134E  
**Nurturing Environments for Infants and Toddlers**  
0.5 – 3 units; 0.5 – 3 hours Lecture  
Co-requisite: For sections taught in Spanish or in a Bilingual Format: Concurrent enrollment in an appropriate ESL course. Recommended Preparation: ECE 31 or ECE 131 and/or current experience as a caregiver for infants and toddlers.  
Repeatability: May be taken a total of 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.  
*Transfer Credit: Non-transferable.*

ECE 134SN  
**Infants and Toddlers with Special Needs in the Childcare Program**  
1 – 2 units; 1 – 2 hours Lecture  
Co-requisite: For sections taught in Spanish or in a Bilingual Format: Concurrent enrollment in an appropriate ESL course. Recommended Preparation: ECE 31 or ECE 131.  
Repeatability: May be taken a total of 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.  
*Transfer Credit: Non-transferable.*
ECE 135  **Infant and Toddler Program Development**
4 units; 4 hours Lecture
Prerequisite: ECE 31 or ECE 131.
Co-requisite: For sections taught in Spanish or in a Bilingual Format: Concurrent enrollment in an appropriate ESL course.
Repeatability: May be taken a total of 1 time.
Teaches principles for planning developmentally appropriate and culturally responsive group care of infants and toddlers to promote cognitively, 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.
Transfer Credit: Non-transferable.

ECE 139AZ  **Special Topics in Infant/Toddler Development and Care**
0.5 – 3 units; 0.5 – 3 hours Lecture
Co-requisite: For sections taught in Spanish or in a Bilingual Format: Concurrent enrollment in an appropriate ESL course.
Recommended Preparation: ECE 31 or ECE 131 and/or current experience as a caregiver for infants and toddlers.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

ECE 142  **Niño, familia, y comunidad**
3 units; 3 hours Lecture
Prerequisite: ECE 31 or ECE 131.
Co-requisite: For sections taught in Spanish or in a Bilingual Format: Concurrent enrollment in an appropriate ESL course.
Repeatability: May be taken a total of 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: Non-transferable.

ECE 145  **Peace Education and Children’s Literature**
1 – 3 units; 1 – 3 hours Lecture
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

ECE 146  **The Child with Special Needs in the Child Care Program**
2 units; 2 hours Lecture
Prerequisite: ECE 31 or ECE 131.
Co-requisite: For sections taught in Spanish or in a Bilingual Format: Concurrent enrollment in an appropriate ESL course.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

ECE 156A  **Curriculum for the Young Child: Life Science**
1 – 3 units; 1 – 3 hours Lecture
Co-requisite: For sections taught in Spanish or in a Bilingual Format: Concurrent enrollment in an appropriate ESL course.
Recommended Preparation: ECE 31 or ECE 131 and ECE 53.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

ECE 156B  **Curriculum for the Young Child: Physical Science**
1 – 3 units; 1 – 3 hours Lecture
Co-requisite: For sections taught in Spanish or in a Bilingual Format: Concurrent enrollment in an appropriate ESL course.
Recommended Preparation: ECE 31 or ECE 131 and ECE 53.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

ECE 156C  **Curriculum for the Young Child: Social Knowledge**
1 – 3 units; 1 – 3 hours Lecture
Co-requisite: For sections taught in Spanish or in a Bilingual Format: Concurrent enrollment in an appropriate ESL course.
Recommended Preparation: ECE 31 or ECE 131 and ECE 53.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

ECE 156D  **Large Motor and Movement Curriculum**
1 – 3 units; 1 – 3 hours Lecture
Co-requisite: For sections taught in Spanish or in a Bilingual Format: Concurrent enrollment in an appropriate ESL course.
Recommended Preparation: ECE 31 or ECE 131 and ECE 53.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.
ECE 156E Exploring Music with the Young Child
1 – 3 units; 1 – 3 hours Lecture
Co-requisite: For sections taught in Spanish or in a Bilingual Format:
Concurrent enrollment in an appropriate ESL course.
Recommended Preparation: ECE 31 or ECE 131 and ECE 53.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

ECE 156G Circle Time Activities
1 – 3 units; 1 – 3 hours Lecture
Co-requisite: For sections taught in Spanish or in a Bilingual Format:
Concurrent enrollment in an appropriate ESL course.
Recommended Preparation: ECE 31 or ECE 131 and ECE 53.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

ECE 156H Cooking Curriculum for Young Children
1 – 3 units; 1 – 3 hours Lecture
Co-requisite: For sections taught in Spanish or in a Bilingual Format:
Concurrent enrollment in an appropriate ESL course.
Recommended Preparation: ECE 31 or ECE 131 and ECE 53.
Repeatability: May be taken a total of 1 time.
Presents developmentally appropriate practices for cooking with young children to support sensory/motor learning; math and science concepts; emergent literacy and language, in culturally responsive curriculum. Presents strategies for planning and preparing a child-safe cooking environment; how to create healthy and nutritious, simple, good tasting food; and how to implement a cooking curriculum using everyday utensils and appliances. May be offered in Spanish or in a Bilingual Format.
Transfer Credit: Non-transferable.

ECE 156J Superhero and Weapon Play
1 – 3 units; 1 – 3 hours Lecture
Co-requisite: For sections taught in Spanish or in a Bilingual Format:
Concurrent enrollment in an appropriate ESL course.
Recommended Preparation: ECE 31 or ECE 131 and ECE 53 and/or current experience working with preschool-age children.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

ECE 156K Exploring Art with the Young Child
1 – 3 units; 1 – 3 hours Lecture
Co-requisite: For sections taught in Spanish or in a Bilingual Format:
Concurrent enrollment in an appropriate ESL course.
Recommended Preparation: ECE 31 or ECE 131 and ECE 53.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

ECE 156L Fostering First and Second Language Development
1 – 3 units; 1 – 3 hours Lecture
Co-requisite: For sections taught in Spanish or in a Bilingual Format:
Concurrent enrollment in an appropriate ESL course.
Recommended Preparation: ECE 31 or ECE 131 and ECE 53.
Repeatability: May be taken a total of 1 time.
Studies the development of language in children learning their first and second language. 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.
Transfer Credit: Non-transferable.

ECE 156M Early Literacy Foundations for Young Children
1 – 3 units; 1 – 3 hours Lecture
Prerequisite: Currently working as a teacher/caregiver in a licensed program for children birth through age five.
Co-requisite: For sections taught in Spanish or in a Bilingual Format:
Concurrent enrollment in an appropriate ESL course.
Recommended Preparation: ECE 31 or ECE 131 and ECE 53.
Repeatability: May be taken a total of 1 time.
Introduces 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.
Transfer Credit: Non-transferable.

ECE 156N Early Math Foundations for Young Children
1 – 3 units; 1 – 3 hours Lecture
Co-requisite: For sections taught in Spanish or in a Bilingual Format:
Concurrent enrollment in an appropriate ESL course.
Recommended Preparation: ECE 31 or ECE 131 and ECE 53.
Repeatability: May be taken a total of 1 time.
Introduces concepts and strategies for choosing and presenting 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.
Transfer Credit: Non-transferable.
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.  
Repeatability: May be taken a total of 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. May be offered in a Distance-Learning Format.  
Transfer Credit: Non-transferable.

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.  
Repeatability: May be taken a total of 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 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. May be offered in a Distance-Learning Format.  
Transfer Credit: Non-transferable.

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.  
Repeatability: May be taken a total of 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.  
Transfer Credit: Non-transferable.

ECE 158  Working With Families  
3 units; 3 hours Lecture  
Co-requisite: For sections taught in Spanish or in a Bilingual Format: Concurrent enrollment in an appropriate ESL course.  
Hybrid Requisite: Completion of or concurrent enrollment in ECE 51  
Repeatability: May be taken a total of 1 time.  
Focuses 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.  
Transfer Credit: Non-transferable.

ECE 161A-Z  Child Development and Interaction Skills in Early Childhood  
0.5 – 3 units; 0.5 – 3 hours Lecture  
Co-requisite: For sections taught in Spanish or in a Bilingual Format: Concurrent enrollment in an appropriate ESL course.  
Recommended Preparation: ECE 31 or ECE 131.  
Repeatability: May be taken a total of 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.  
Transfer Credit: Non-transferable.

ECE 162A-Z  Curriculum Development in Programs for Young Children  
0.5 – 3 units; 0.5 – 3 hours Lecture  
Co-requisite: For sections taught in Spanish or in a Bilingual Format: Concurrent enrollment in an appropriate ESL course.  
Recommended Preparation: ECE 31 or ECE 131; Current experience as a caregiver for children.  
Repeatability: May be taken a total of 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.  
Transfer Credit: Non-transferable.

ECE 168  Advanced Child Care Practicum  
2 – 4 units; 6 – 12 hours Laboratory  
Prerequisite: ECE 54 or ECE 128.  
Hybrid Requisite: Completion of or concurrent enrollment in ECE 158.  
Recommended Preparation: ECE 34; ECE 135.  
Repeatability: May be taken a total of 1 time.  
Offers advanced instruction and support for interns or experienced teachers engaged in supervised field experience at designated child development programs.  
Transfer Credit: Non-transferable.
ECONOMICS
Human Arts and Social Sciences Division
Paul Harvell, Division Dean
Division Office, Room 420
Cheryl Barkey, Department Chair, (831) 479-6223
Aptos Counseling: (831) 479-6274 for appointment
Watsonville Counseling: (831) 786-4734
Call (831) 479-6297 for more information
http://www.cabrillo.edu/programs

Economics A.A.-T Transfer Degree
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 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.

Cabrillo College offers an option for degrees in Economics. The first option listed is the Associate in Arts in Economics 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 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, or a “P” if the course is taken on a “pass/no pass” basis. *Note: this degree requires greater than 18 units in the major for completion.
- Certified completion of the California State University General Education-Breadth pattern (CSU GE Breadth) or the Intersegmental General Education Transfer Curriculum (IGETC) pattern.

Learning Outcomes
The Cabrillo College Core Competencies (with an emphasis in the study of Economics):
1. Communication: Reading, Writing, Listening, Speaking, and/or Conversing
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving

CSU or IGETC for CSU General Education Requirements 37-39 Units
Take required Core Courses (13-16 Units)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 1A</td>
<td>Introduction to Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>MATH 12</td>
<td>Elementary Statistics</td>
<td>5</td>
</tr>
<tr>
<td>or</td>
<td>Honors Elementary Statistics</td>
<td>5</td>
</tr>
<tr>
<td>or</td>
<td>Statistics for Behavioral Sciences</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>Business Calculus</td>
<td>4</td>
</tr>
<tr>
<td>or</td>
<td>Analytic Geometry and Calculus I</td>
<td>5</td>
</tr>
</tbody>
</table>

*BUS 9 is an approved substitution for MATH 12/12H if listed on ASSIST.org as an approved substitution for the major at the specific CSU.

List A - Take one from the following: (3-5 Units)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 1A</td>
<td>Financial Accounting</td>
<td>4</td>
</tr>
<tr>
<td>ACCT 1B</td>
<td>Managerial 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>
<td>BUS 52</td>
<td>Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>CS 1</td>
<td>Intro to Computers and Computer Technology</td>
<td>3</td>
</tr>
<tr>
<td>MATH SB</td>
<td>Analytic Geometry and Calculus II</td>
<td>5</td>
</tr>
<tr>
<td>MATH 13</td>
<td>Finite Mathematics</td>
<td>3</td>
</tr>
</tbody>
</table>

Any course articulated as lower-division major prep at a CSU.

List B - Take one from the following: (3-5 Units)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH SC</td>
<td>Analytic Geometry and Calculus III</td>
<td>5</td>
</tr>
<tr>
<td>MATH 7</td>
<td>Introduction to Differential Equations</td>
<td>3</td>
</tr>
</tbody>
</table>

Note: All ECON and MATH courses, and BUS 9 are also general education courses.

Total Units 60
Economics A.A. Degree

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.

A.A. General Education 30 Units

Core Courses (16-21 Units) Units

- ECON 1A Introduction to Macroeconomics .........................3
- ECON 1B Introduction to Microeconomics .........................3
- MATH 13 Finite Mathematics .............................................3
- MATH 18 Business Calculus .............................................4
- or MATH 5A Analytic Geometry and Calculus I ....................5
- and MATH 5B Analytic Geometry and Calculus II .................5
- MATH 12 Elementary Statistics .......................................5
- or MATH 12H Honors Elementary Statistics ......................5
- or BUS 9 Business Statistics .............................................3

Plus one course chosen from the following: (3-5 Units) Units

- ACCT 1A Financial Accounting .......................................4
- ACCT 1B Managerial Accounting .....................................4
- ANTHR 2 Introduction to Anthropology: Cultural ...............3
- ANTHR 2H Honors Introduction to Anthropology: Cultural ...3
- BUS 18 Business Law .....................................................4
- ES 10 Introduction to Environmental Science ...................3
- FIN 10 Introduction to Investments .................................4
- GEOG 2 Cultural Geography ..........................................3
- MATH 5C Analytic Geometry and Calculus III .................5
- MATH 6 Introduction to Linear Algebra .........................3
- MATH 7 Introduction to Differential Equations ...............3
- PSYCH 1 General Psychology .......................................3
- or PSYCH 1H Honors General Psychology .........................3
- PSYCH 6 Introduction to Social Psychology .....................3
- PSYCH 12 Introduction to Cognitive Psychology ..............3
- SOH 1 Introduction to Sociology: Understanding Society ....3
- or SOH 1H Honors Introduction to Sociology: Understanding Society .........................3
- SOH 2 Contemporary Social Problems ..........................3
- or SOH 2H Honors Contemporary Social Problems ............3

Electives:
(Any Course Numbered 1-99) ........................................... 4 - 11

Total Units 60

Economics Courses

ECON 1A Introduction to Macroeconomics
3 units; 3 hours Lecture
Prerequisite: MATH 154 or equivalent.
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. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC. C-ID: ECON 202

ECON 1B Introduction to Microeconomics
3 units; 3 hours Lecture
Prerequisite: MATH 154 or equivalent.
Repeatability: May be taken a total of 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. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC. C-ID: ECON 201
EDUCATION
Human Arts and Social Sciences Division
Paul Harvell, Division Dean
Division Office, Room 420
Cheryl Barkey, Department Chair, (831) 479-6223
Liberal Studies website:
www.cabrillo.edu/academics/education
Mary Soltis, Program Contact, (831) 479-6114
Aptos Counseling: (831) 479-6274 for appointment
Watsonville Counseling: (831) 786-4734
Call (831) 479-6297 for more information

Liberal Studies website:
www.cabrillo.edu/academics/education

Learning Outcomes
The Cabrillo College Core Competencies (with an emphasis in the study of Liberal Studies (For Elementary Teaching):
1. Communication: Reading, Writing, Listening, Speaking and/or Conversing
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving

Elementary Teacher Education A.A.-Transfer Degree
The Associate in Arts in Elementary Teacher Education for Transfer (A.A.-T in Elementary Teacher Education) is intended for students who plan to transfer and complete a Liberal Studies degree and a Multiple Subject Teaching Credential to prepare them for elementary school teaching. Students completing the Associate in Arts in Elementary Teacher Education for Transfer (A.A.-T in Elementary Teacher Education) are guaranteed admission to the CSU system, but not to a particular campus or major. This A.A.-T 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, or a "P" if the course is taken on a "pass/no pass" basis. Note: this degree requires greater than 18 units in the major for completion.

- Certified completion of the California State University General Education-Breadth pattern (CSU GE Breadth) or the Intersegmental General Education Transfer Curriculum (IGETC) pattern.

CSU or IGETC for CSU General Education Requirements 37-39 Units

Core Courses

EDUC 80 and EDUC 80L Child Growth and Development
BIO 11A or 13A and BIO 13AL
PHYS 10 and PHYS 10L
CHEM 3 or CHEM 3L or CHEM 10 or CHEM 30A or CHEM 32
GEOG 4 or CHEM 3 Introductory Inorganic Chemistry
ENGL 1AMC or ENGL 1AMCH College Composition: Multicultural Emphasis
ENGL 1A or ENGL 1AH or ENGL 1AMC or ENGL 1AMCH
COMM 1 or 1H
ENGL 1BH or ENGL 1B
ENGL 1A or 1H or 1AH or 1AMC or 1AMCH
ENGL 1B
CHEM 3 or CHEM 10L
HIST 17AH or HIST 17A or HIST 17AH
PS 1 or PS 1H

List A – Select one course from the following: (3 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 4</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 2</td>
<td>3</td>
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<tr>
<td>ENGL 2H</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 2MC</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 2MCH</td>
<td>3</td>
</tr>
<tr>
<td>PHILO 49</td>
<td>3</td>
</tr>
</tbody>
</table>

American Education in a Changing World ............ 2
Education Service Learning Lab ...................... 1
Child Growth and Development ...................... 3
General Biology ........................................ 4
Biology of People-Anatomy & Physiology .......... 3
Introduction to Physics ................................ 3
Chemistry for the Allied Health Major .............. 5
Physical Geology ....................................... 4
Number Systems ..................................... 3
Public Speaking ...................................... 3
Honors Public Speaking .............................. 3
College Composition .................................. 3
Honors College Composition ......................... 3
College Composition: Multicultural Emphasis ...... 3
Honors College Comp: Multicultural Emphasis .... 3
Composition and Literature .......................... 3
Honors Composition and Literature ................. 3
Comp & Literature: Multicultural Emphasis ....... 3
World Regional Geography .......................... 3
World History to 1500 ................................ 3
United States History to 1865 ....................... 3
Honors United States History to 1865 .............. 3
Introduction to Government ......................... 3
Honors Introduction to Government ................. 3
Argumentation and Persuasion ....................... 3
Composition and Critical Thinking .................. 3
Honors Composition and Critical Thinking .......... 3
Comp & Critical Thinking: Multicultural Emphasis 3
Honors Composition and Critical Thinking: Multicultural Emphasis .................... 3
Intro to Critical Thinking ......................... 3
List B – Select one course from the following: (3 units) Units
AH 10 Appreciation/Introduction to the Visual Arts........ 3
AH 20A Survey of Art from Prehistoric Through Medieval Periods .................................................3
AH 20B Survey of Art from the Renaissance to the Present .............................................................................3
DANCE 1 Dance Appreciation ..................................................3
MUS 10 Music Appreciation ..................................................3
MUS 77 Correlation of the Arts ..............................................3
TA 9 Appreciation of Theatre Arts ........................................3

List C – Select up to 12 additional units from the following if needed based on CSU campus requirements (see www.ASSIST.org): Units
Any Course not used from Lists A or B above or
ART 2A Drawing and Composition I ..................................3
ASTRO 3 Solar System Astronomy ........................................3
or
ASTRO 4 Stars, Galaxies, and the Origin of the Universe ..........3
and
ASTRO 8A Observational Astronomy ..................................1
COMM 10 Communication Process ......................................3
CS 1 Introduction to Computers and Computer Technology ....3
and
CS 1L Technology Tools ....................................................2
GEOG 1 Physical Geography ................................................3
HIST 2B World History: 1500 to Present .............................3
HIST 17B United History since 1865 ....................................3
or
HIST 17BH Honors United States History since 1865 .............3
HS 10 Personal Health ..........................................................3
MATH 4 Precalculus Algebra and Trigonometry .................5
MATH 12 Elementary Statistics ............................................5
or
MATH 12H Honors Elementary Statistics .........................5
PSYCH 8 Introduction to Developmental Psychology .........3

All courses except ART 2A, EDUC 80, 80L and CS 1/1L are also General Education courses

Total Units 60

Education Courses

EDUC 80 American Education in a Changing World
2 units; 2 hours Lecture
Repeatability: May be taken a total of 1 time.
Introduces students to the teaching profession in the United States, reexaming assumptions about teaching and learning by looking at teaching and learning theory, curriculum, and diversity in today's classroom. May be offered in a Distance-Learning Format
Transfer Credit: Transfers to CSU; UC. EDUC 80 + 80L = C-ID EDUC 200.

EDUC 80L Education Service Learning Lab
1 unit; 3 hours Laboratory
Hybrid Requisite: Completion of or concurrent enrollment in EDUC 80.
Repeatability: May be taken a total of 1 time.
Provides a service learning opportunity for students interested in exploring teaching professions. Students participate in K-12 classroom site placements with mentor teachers. EDUC 80L is designed for the student who intends to transfer to a 4-year institution that accepts Service Learning/Work Experience Education. Students participate in elementary classroom site placements.
Transfer Credit: Transfers to CSU; UC. EDUC 80 + 80L = C-ID EDUC 200.

EDUC 120A-Z Special Topics in Education
1 – 3 units; 1 – 3 hours Lecture
Hybrid Requisite: Completion of or concurrent enrollment in EDUC 80.
Analyzes special topics in the field of education, including but not limited to such topics as history, philosophy, diversity, differentiated instruction, curriculum, California State standards, teacher preparation examinations, and techniques in effective tutoring. May also include on site experience.
Transfer Credit: Non-transferable.
Engineering A.S. Degree

Engineers are the people who design and build the systems, structures, and products that make the world run. Engineers are employed in research, development, design, construction, manufacturing, and operations of technical projects related to almost all aspects of modern life, including the environment, communications, transportation, food production, medicine and health, space exploration, housing, consumer products, and energy.

Cabrillo College offers a two-year lower division engineering program that prepares students for transfer with full junior standing in all engineering disciplines to colleges and universities in California and across the United States. The first two years of the engineering curriculum at most colleges and universities are similar with specialization commencing in the junior year. There are many engineering disciplines and the following are the primary ones: Aerospace, Agricultural, Architectural, Biomedical, Biological, Chemical, Civil, Computer, Electrical, Environmental, Industrial, Manufacturing, Materials, Mechanical, Nuclear, Petroleum, and Software.

An engineering student at Cabrillo does not need to select a major branch of engineering study until applying for transfer to a university; however, some of the course requirements for transfer depend on the student’s intended major and the transfer university. Completion of the appropriate lower division core courses below is essential in facilitating progress as an upper division engineering transfer student.

For transfer to California public universities, go to www.assist.org to determine the lower division major requirements. Additionally, for CalPoly-SLO, also consult admissions: calpoly.edu/applicants/transfer/criteria.html. For California private universities and out-of-state universities, go to the universities’ transfer web site to determine the transfer criteria.html. For California private universities and out-of-state universities, go to the universities’ transfer web site to determine the transfer criteria.html. For California private universities and out-of-state universities, go to the universities’ transfer web site to determine the transfer criteria.html. For California private universities and out-of-state universities, go to the universities’ transfer web site to determine the transfer criteria.html. For California private universities and out-of-state universities, go to the universities’ transfer web site to determine the transfer criteria.html.

An engineering student at Cabrillo does not need to select a major branch of engineering study until applying for transfer to a university; however, some of the course requirements for transfer depend on the student’s intended major and the transfer university. Completion of the appropriate lower division core courses below is essential in facilitating progress as an upper division engineering transfer student.

For transfer to California public universities, go to www.assist.org to determine the lower division major requirements. Additionally, for CalPoly-SLO, also consult admissions: calpoly.edu/applicants/transfer/criteria.html. For California private universities and out-of-state universities, go to the universities’ transfer web site to determine the transfer criteria.html. For California private universities and out-of-state universities, go to the universities’ transfer web site to determine the transfer criteria.html. For California private universities and out-of-state universities, go to the universities’ transfer web site to determine the transfer criteria.html. For California private universities and out-of-state universities, go to the universities’ transfer web site to determine the transfer criteria.html.

Learning Outcomes

The Cabrillo College Core Competencies (with an emphasis in the study of Engineering):

1. Communication: Reading, Writing, Listening, Speaking, and/or Conversing
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving

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. This degree may be completed as a transferable Associate in Science degree with the addition of university admission requirements and increased general education requirements.

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 (39 Units)

The following core course is recommended to help determine the field of engineering to pursue:

ENGR 5 Engineering as a Profession......................... 2

The following core courses meet lower-division requirements for ALL engineering majors and transfer universities:

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

The following core courses meet lower-division requirements for MOST engineering majors and transfer universities:

CHEM 1A General Chemistry I ..................................... 5
CHEM 1B Introduction to Programming Concepts and Methodology, C+ ......................................................... 4
CHEM 12J Introduction to Programming Concepts and Methodology, Java ......................................................... 4

ENR 30 **Computer Applications in Engineering .......... 4
ENR 10 *Engineering Communication .......................... 2
ENR 15 **Circuits ......................................................... 4
ENR 25 Graphics and Design ........................................ 4
ENR 35 **Statistics ...................................................... 4
ENR 45 **Engineering Materials .................................. 4
MATH 6 Introduction to Linear Algebra ............................. 3
MATH 7 Introduction to Differential Equations ....................... 3
PHYS 4C **Physics for Scientists and Engineers III .......... 5

The following core courses meet lower-division requirements for SOME engineering majors and transfer universities:

BIO 9A Molecular, Cellular, and Animal Biology .................. 5
BIO 9B Ecology, Evolution, and Plant Biology .................... 5
CHEM 1B General Chemistry II .................................... 5
CHEM 12A Organic Chemistry I ..................................... 3
CHEM 12AL Organic Chemistry Laboratory I ....................... 2
CHEM 12B Organic Chemistry II .................................... 3
CHEM 12BL Organic Chemistry Laboratory II ...................... 2
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
CS 24  *Elementary Computer Organization .................................................. 4
ENGR 1A  *Surveying .................................................. 4
ENGR 12  Machining Processes .................................................. 1.5
ENGR 26  **Solid Modeling .................................................. 1
PHYS 4D  ***Modern Physics for Scientists and Engineers .................................................. 3

(any of the courses above; at least 12 units of ENGR courses)

Total Units 60

*Fall only; **Spring only; ***Fall, even year only

Engineering Courses

ENGR 1A  Surveying
4 units; 3 hours Lecture, 3 hours Laboratory
Prerequisite: MATH 3 or high school trigonometry or MATH 4 or equivalent skills.
Recommended Preparation: ENGR 25 (may be taken concurrently); Eligibility for ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken a total of 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. Fall semester only.
Transfer Credit: Transfers to CSU; UC.

ENGR 3  How Things Work
3 units; 3 hours Lecture
Recommended Preparation: READ 100; MATH 154; Assessment into ENGL 1A.
Repeatability: May be taken a total of 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
Recommended Preparation: Assessment into ENGL 1A.
Repeatability: May be taken a total of 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.
Repeatability: May be taken a total of 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 ENGR 10, ENGR 5 must also be taken.

ENGR 12  Machining Processes
1.5 unit; 1 hour Lecture, 2 hours Laboratory
Recommended Preparation: Assessment into ENGL 1A.
Repeatability: May be taken a total of 1 time.
Provides hands-on experience with fabrication of mechanical components and assemblies using conventional, automatic, and numerical control tools. Identifies hazards associated with specific machine tools and processes, and ways of reducing risk of injury.
Transfer Credit: Transfers to CSU.

ENGR 15  Circuits
4 units; 3 hours Lecture, 3 hours Laboratory
Prerequisite: PHYS 4B.
Hybrid Requisite: Completion of or concurrent enrollment in MATH 7.
Recommended Prep: Eligibility for ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken a total of 1 time.
Analyzes the DC and AC electrical circuits containing resistors, capacitors, inductors, dependent sources, operational amplifiers, and/or switches. Basic circuit laws, network theorems, and computer analysis are used to solve DC steady state circuits, RC, RL, and RLC DC transient circuit and sinusoidal AC steady-state circuits. Power and energy analysis is performed throughout the course. Spring semester only.
Transfer Credit: Transfers to CSU; UC.

ENGR 25  Graphics and Design
4 units; 3 hours Lecture, 3 hours Laboratory
Prerequisite: MATH 153 or MATH 3 or MATH 4 or high school geometry.
Recommended Preparation: Assessment into ENGL 1A.
Repeatability: May be taken a total of 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.
Transfer Credit: Transfers to CSU; UC.
ENGR 26  Solid Modeling
1 unit; 3 hours Laboratory
Hybrid Requisite: Completion of or concurrent enrollment in ENGR 25.
Recommended Preparation: Assessment into ENGL 1A.
Repeatability: May be taken a total of 1 time.
Applies principles of solid modeling using parametric CAD software in engineering design and the production of engineering drawings. Construct parts, solid models, and assemblies. Plot three-dimensional drawings and dimensioned multiview drawings. Spring semester only. Transfer Credit: Transfers to CSU; UC.

ENGR 30  Computer Applications in Engineering
4 units; 3 hours Lecture, 3 hours Laboratory
Prerequisite: MATH 5A.
Required Preparation: Eligibility for ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken a total of 1 time.
Applies computer-based problem-solving methods relevant to engineering using the fundamentals of procedural and object-oriented programming, numerical analysis, and data structures. Applies numeric techniques and computer simulation to analyze and solve engineering-related problems. Transfer Credit: Transfers to CSU; UC. C-ID: ENGR 220

ENGR 35  Statics
3 units; 2 hours Lecture, 3 hours Laboratory
Prerequisite: PHYS 4A and MATH 5B.
Recommended Preparation: ENGR 25; ENGL 100L or Assessment into ENGL 1A.
Repeatability: May be taken a total of 1 time.
Analyzes force systems on rigid bodies in static equilibrium using two- and three-dimensional models and vector and scalar analysis methods. Topics include distributed force systems, friction, couples, moments; shear and bending moment diagrams; analysis of trusses, frames, and beams; centroids/center of mass; area and mass moment of inertia. Optional topics include cables, Mohr's circle and virtual work. Spring semester only. Transfer Credit: Transfers to CSU; UC. C-ID: ENGR 130

ENGR 40  Strength of Materials
4 units; 3 hours Lecture, 3 hours Laboratory
Prerequisite: ENGR 35.
Recommended Preparation: Eligibility for ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken a total of 1 time.
Studies stresses, strains, and deformations associated with axial, torsional, and flexural loading of bars, shafts, and beams, as well as pressure loading of thin-walled pressure vessels. The course also covers stress and strain transformation, Mohr's Circle, ductile and brittle failure theories, and the buckling of columns. Statically indeterminate systems are also studied. Offered spring semester only. Transfer Credit: Transfers to CSU; UC pending review.

ENGR 45  Engineering Materials
4 units; 3 hours Lecture, 3 hours Laboratory
Prerequisite: PHYS 4A and CHEM 1A and ENGL 1A/1AH/1AMC/1AMCH.
Recommended Preparation: ENGR 10 and CHEM 1B.
Repeatability: May be taken a total of 1 time.
Applies 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. Fall semester only. Transfer Credit: Transfers to CSU; UC.

ENGR 98A  Global Engineering
2 units; 2 hours Lecture
Hybrid Requisite: ENGR 5.
Recommended Preparation: ENGR 25.
Repeatability: May be taken a total of 1 time.
Prepares students for the Engineering Abroad Program. Explores the interrelationship between people, culture, the global economy, the environment, sustainability, technology, ethics, engineering problem solving, and engineering design. Transfer Credit: Transfers to CSU.

ENGR 98B  Engineering Abroad
1 unit; 3 hours Laboratory
Prerequisite: ENGR 98A.
Repeatability: May be taken a total of 1 time.
Explores the interrelationship between engineering, technology, and culture through a service-learning or an experiential engineering abroad experience. Transfer Credit: Transfers to CSU.
ENGINEERING TECHNOLOGY
Natural and Applied Sciences Division
Jamie Alonzo, Division Dean
Division Office, Room 701
Gary Marcoccia, Department Chair, (831) 479-5705
Aptos Counseling: (831) 479-6274 for appointment
Watsonville Counseling: (831) 786-4734
Call (831) 479-6328 for more information
www.cabrillo.info

Engineering Technology A.S. Degree
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 craftsman. 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 six Skills Certificate options. Additionally, several courses carry transfer credit to baccalaureate degree granting institutions.

Learning Outcomes
1. Analyze and troubleshoot electrical circuits and mechanical systems based upon industry protocols and standards. (Critical Thinking)
2. Develop a portfolio of laboratory reports that demonstrate skills acquired within a particular technology. (Communication, Professional Development)
3. 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)
4. Demonstrate written and verbal communication skills through technical documentation and oral presentations. (Communication, Professional Development, Critical Thinking)

A.S. General Education 21 Units

Core Courses (27 units) Units
ETECH 24 Introduction to AutoCAD .................................................. 3
ETECH 31 Introduction to Electronic Circuit and
Schematic Design ........................................................................ 3
ETECH 40 3D Animation ................................................................... 3
ETECH 41 Advanced AutoCAD.......................................................... 3
ETECH 60 Architecture/Green Design:
Principles and Practices ................................................................ 3
ETECH 61 Architecture/Green Design:
Planning and Construction ........................................................... 3
ETECH 62 Architecture/Green Design:
Implementation using AutoCAD .................................................. 3
ETECH 75 BIM and Sustainable Design Strategies I ......................... 3
ETECH 130 Introduction to Creo and Solidworks ............................. 3

Approved Program Electives (5 Units)

Units
BUS 20 Introduction to Business ..................................................... 3
CEM 155 Blueprint Reading ............................................................. 3
CIS 71 Information & Communication Technology Essentials ....... 4
DM 2 Digital Publishing ................................................................. 4
DM 4 Digital Graphics .................................................................. 3
ETECH 43 Intermediate 3D Animation ........................................... 3
ETECH 131 Intermediate Creo and Solidworks ................................ 3
ETECH 199C Career Work Experience Education ........................... 3

Electives:
(Any Course numbered 1-199) ......................................................... 7

Total Units 60

Engineering Technology Certificate of Achievement
Learning Outcomes
1. Develop a portfolio of laboratory reports that demonstrate skills acquired within a particular technology. (Communication, Professional Development)
2. Analyze and troubleshoot electrical circuits and mechanical systems based upon industry protocols and standards. (Critical Thinking)
3. 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)

Core Courses (27 units) Units
ETECH 24 Introduction to AutoCAD .................................................. 3
ETECH 31 Introduction to Electronic Circuit and
Schematic Design ........................................................................ 3
ETECH 40 3D Animation ................................................................... 3
ETECH 41 Advanced AutoCAD.......................................................... 3
ETECH 60 Architecture/Green Design:
Principles and Practices ................................................................ 3
ETECH 61 Architecture/Green Design:
Planning and Construction ........................................................... 3
ETECH 62 Architecture/Green Design:
Implementation using AutoCAD .................................................. 3
ETECH 75 BIM and Sustainable Design Strategies I ......................... 3
ETECH 130 Introduction to Creo and Solidworks ............................. 3
ETECH 131 Intermediate Creo and Solidworks .............................. 3
ETECH 130 Introduction to Creo and Solidworks ............................. 3
One of the following:
ENGL 100 Elements of Writing ..................................................... 3
or ESL 100 High Advanced Academic ESL ................................. 4-6
or ENGL 1A/1AH/1AMC/1AMCH ...................................................... 3
or CABT 157 Business and Technical Writing ................................. 3

Total Units 30-33
### Architecture Drafting and Design Skills Certificate

**Learning Outcomes**
1. Demonstrate mastery of an architectural knowledge “base equivalent” to obtaining an architectural 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**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETECH 24</td>
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<tr>
<td>ETECH 60</td>
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</tr>
<tr>
<td>ETECH 61</td>
<td>3</td>
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<tr>
<td>ETECH 62</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 75</td>
<td>3</td>
</tr>
</tbody>
</table>

*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):*

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEM 151</td>
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</tr>
<tr>
<td>CEM 155</td>
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<td>DM 4</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 40</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 130</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 131</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Units**

15-16

### Computer Aided Drafting and Design Skills Certificate

**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**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ETECH 24</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 41</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 75</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 130</td>
<td>3</td>
</tr>
</tbody>
</table>

*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):*

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>DM 2</td>
<td>4</td>
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<tr>
<td>DM 4</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 40</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 131</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Units**

12-13

### Civil/Survey Drafting Skills Certificate

**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 a civil/survey plan set. (Critical Thinking)

**Required Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGR 1A</td>
<td>4</td>
</tr>
<tr>
<td>ETECH 24</td>
<td>3</td>
</tr>
</tbody>
</table>

*Requires Trigonometry as a prerequisite (Fall only)*

**Total Units**

7

### Computer Animation Skills Certificate

**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**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>ETECH 24</td>
<td>3</td>
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<tr>
<td>ETECH 40</td>
<td>3</td>
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<tr>
<td>ETECH 43</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 130</td>
<td>3</td>
</tr>
</tbody>
</table>

*If desired, one required Computer Animation course may be replaced with one of the following (listed courses may require the completion of prerequisites):*

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>DM 2</td>
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<tr>
<td>DM 4</td>
<td>3</td>
</tr>
<tr>
<td>DM 6</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 75</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Units**

12-13

### Manufacturing Specialist Skills Certificate

**Learning Outcomes**
1. Demonstrate mastery of a manufacturing knowledge “base equivalent” to passing an industry level certification such as Cypress Semicon Professional Institute Certification. (Global Awareness, Critical Thinking)
2. Analyze existing electrical circuits and mechanical systems and identify weaknesses in their configurations. (Critical Thinking, Global Awareness)

3. Build simple electrical circuits and mechanical systems based upon industry protocols and standards. (Critical Thinking, Professional Development)

### Engineering Technology Courses

#### ETECH 24  Introduction to AutoCAD
3 units; 2 hours Lecture, 4 hours Laboratory  
Repeatability: May be taken a total of 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.  
Repeatability: May be taken a total of 1 time.  
Introduces theories and techniques of 3D computer animation. Includes an introduction to 3D model construction, animation, rigging, simulation, motion capture, 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.  
Transfer Credit: Transfers to CSU.

#### ETECH 40  3D Animation
3 units; 2 hours Lecture, 4 hours Laboratory  
Repeatability: May be taken a total of 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 41  Advanced AutoCAD
3 units; 2 hours Lecture, 4 hours Laboratory  
Prerequisite: ETECH 24 or equivalent skills.  
Repeatability: May be taken a total of 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.
ETECH 43  Intermediate 3D Animation
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ETECH 40.
Repeatability: May be taken a total of 1 time.
 Presents a second-level course in the use of 3D animation 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.
*Transfer Credit:* Transfers to CSU; UC pending review.

ETECH 60  Architecture/Green Design:
Principles and Practices
3 units; 3 hours Lecture
Repeatability: May be taken a total of 1 time.
 Provides an overview of the field of architectural drafting and green
design for those interested in pursuing this occupational area of study.
Includes an introduction to the professional fields of architecture, en­
gineering, city planning, and landscape architecture. The language
of architecture and the historical development of green construction
principles will also be emphasized.
*Transfer Credit:* Transfers to CSU; UC.

ETECH 61  Architecture/Green Design:
Planning and Construction
3 units; 2.5 hours Lecture, 1.5 hours Laboratory
Repeatability: May be taken a total of 1 time.
 Presents an introduction to green architectural drafting/design with
an emphasis on drafting construction details, and the application of
green construction processes/materials. AutoCAD computer aided
drafting software will be introduced as a means of creating simple de­
sign projects.
*Transfer Credit:* Transfers to CSU.

ETECH 62  Architecture/Green Design:
Implementation using AutoCAD
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ETECH 24 or equivalent skills.
Repeatability: May be taken a total of 1 time.
 Covers intermediate topics in AutoCAD-based green 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.
Repeatability: May be taken a total of 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 archi­
tectural model. Also introduces a variety of output capabilities includ­
ing energy analysis software. Some of the class hours for this course
may be scheduled as To Be Arranged (TBA). See the Schedule of Class­
es for the details about this course offering. May be offered in a Dis­
tance-Learning Format.
*Transfer Credit:* Transfers to CSU.

ETECH 130  Introduction to Creo and Solidworks
3 units; 2 hours Lecture, 4 hours Laboratory
Repeatability: May be taken a total of 1 time.
 Covers an introduction to the fundamental operating principles of
Creo and Solidworks software applications. Uses Creo and Solidworks
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.
*Transfer Credit:* Non-transferable.

ETECH 131  Intermediate Creo and Solidworks
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ETECH 130.
Repeatability: May be taken a total of 1 time.
 Covers intermediate-level operating principles of Creo and Solidworks
software applications. Uses Creo and Solidworks for Windows to cre­
ate and revise drawings. The second of a two part Creo and Solidworks
course series. Some of the class hours for this course may be sched­
uled as To Be Arranged (TBA). See the Schedule of Classes for the details
about this course offering.
*Transfer Credit:* Non-transferable.

ETECH 190A-Z Special Topics in Engineering
Technology
0.5 – 3 units; 0.5 - 3 hours Lecture
Repeatability: May be taken a total of 1 time.
 Selected topics in Engineering Technology not covered by regular cat­
alog offerings. Each special topic course will be announced, described,
and given its own title and letter designation in the Schedule of Class­
es. The structure and format of the classes will vary depending on the
subject matter.
*Transfer Credit:* Non-transferable.
English A.A.-T Transfer Degree

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, Shakespeare, Mythology and Folklore, Children's Literature, and studies of Chicana/o-Latina/o and Native 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 Bachelor's and graduate degrees in literature, business, education and teaching, law, communications, and journalism. 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, or a "P" if the course is taken on a "Pass/No Pass" basis.
- Certified completion of the California State University General Education-Breadth pattern (CSU GE Breadth) or the Intersegmental General Education Transfer Curriculum (IGETC) pattern.

Learning Outcomes

The Cabrillo College Core Competencies (with an emphasis in the study of English):
1. Communication: Reading, Writing, Listening, Speaking, and/or Conversing
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving

CSU or IGETC for CSU General Education Requirements 37-39 Units

Core Courses (6 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ENGL 1B</td>
<td>Composition and Literature</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>ENGL 1BH</td>
<td>Honors Composition and Literature</td>
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<tr>
<td>or</td>
<td>ENGL 1BMC</td>
<td>Composition and Literature: Multicultural Emphasis</td>
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<tr>
<td>and</td>
<td>ENGL 1A</td>
<td>Composition and Critical Thinking</td>
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<td>or</td>
<td>ENGL 2</td>
<td>Composition and Critical Thinking</td>
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<td>or</td>
<td>ENGL 2H</td>
<td>Honors Composition and Critical Thinking</td>
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<td>or</td>
<td>ENGL 2MC</td>
<td>Composition and Critical Thinking: Multicultural Emphasis</td>
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<td>or</td>
<td>ENGL 2MCH</td>
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List A - Select 2 courses from: (6 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
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<tr>
<td>ENGL 30A</td>
<td>American Literature</td>
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<tr>
<td>or</td>
<td>ENGL 30B</td>
<td>American Literature</td>
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<tr>
<td>or</td>
<td>ENGL 46A</td>
<td>Major British Writers I</td>
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<td>or</td>
<td>ENGL 46B</td>
<td>Major British Writers II</td>
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List B - Select one course from: (3 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>ENGL 12A</td>
<td>Fiction Writing</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>ENGL 12B</td>
<td>Creative Writing: Poetry</td>
</tr>
<tr>
<td>or</td>
<td>ENGL 12E</td>
<td>Creative Writing: Autobiography</td>
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<td>or</td>
<td>ENGL 12F</td>
<td>Introduction to Creative Writing</td>
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<td>or</td>
<td>ENGL 34</td>
<td>Shakespeare</td>
</tr>
<tr>
<td>or</td>
<td>ENGL 41A</td>
<td>African American Literature: Slave Narrative to 20th Century</td>
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<tr>
<td>or</td>
<td>ENGL 48A</td>
<td>Mythology and Folklore</td>
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</table>

List C - Select one course from: (3-5 units)

<table>
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<tr>
<th>Course</th>
<th>Title</th>
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<td>Business Communications</td>
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<tr>
<td>or</td>
<td>ENGL 12C</td>
<td>Creative Writing: Film</td>
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<td>or</td>
<td>ENGL 14A</td>
<td>Fiction Workshop</td>
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<td>or</td>
<td>ENGL 14B</td>
<td>Poetry Workshop</td>
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<td>or</td>
<td>ENGL 14C</td>
<td>Screenwriting Workshop</td>
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<td>or</td>
<td>ENGL 14E</td>
<td>Autobiography Workshop</td>
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<td>or</td>
<td>ENGL 23A</td>
<td>Reporting for the News Media</td>
</tr>
<tr>
<td>or</td>
<td>ENGG 23A</td>
<td>Reporting for the News Media</td>
</tr>
<tr>
<td>or</td>
<td>ENGL 24A</td>
<td>Native American Prose and Poetry</td>
</tr>
<tr>
<td>or</td>
<td>ENGL 24B</td>
<td>Native American Prose and Poetry</td>
</tr>
<tr>
<td>or</td>
<td>ENGL 27A</td>
<td>Native American Literature and History I</td>
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<tr>
<td>or</td>
<td>ENGL 27B</td>
<td>Native American Literature and History II</td>
</tr>
<tr>
<td>or</td>
<td>ENGL 39</td>
<td>Chicana/o-Latina/o Literature</td>
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<td>or</td>
<td>ENGL 40</td>
<td>Latin American Literature</td>
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<td>or</td>
<td>ENGL 45</td>
<td>World Literature</td>
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<tr>
<td>or</td>
<td>ENGL 49A</td>
<td>The Language of Film: Film History</td>
</tr>
<tr>
<td>or</td>
<td>ENGL 49B</td>
<td>The Language of Film: Special Topics in Film</td>
</tr>
<tr>
<td>or</td>
<td>ENGL 59</td>
<td>Appreciation of Theatre Arts</td>
</tr>
</tbody>
</table>
Electives:  
(Any Course Numbered 1-99) ................................. 3 - 5

Total Units  
60

English A.A. Degree

Learning Outcomes

The Cabrillo College Core Competencies (with an emphasis in the study of English):

1. Communication: Reading, Writing, Listening, Speaking, and/or Conversing
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving

A.A. General Education  
30 Units

Core Courses (15-18 Units)  

Units
ENGL 1B Composition and Literature ........................................ 3
or
ENGL 18H Honors Composition and Literature .................. 3
or
ENGL 18MC 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 six 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

Approved Electives (3-6 Units)  

Units
ENGL 12A Fiction Writing .................................................. 3
ENGL 12B Creative Writing: Poetry ..................................... 3
ENGL 12C Creative Writing: Film ........................................ 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 27A Native American Literature and History I .................. 3
ENGL 27B Native American Literature and History II ............. 3
ENGL 30A American Literature ........................................ 3
ENGL 30B American Literature ........................................ 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 45 World Literature .................................................. 3
ENGL 46A Major British Writers I ....................................... 3
ENGL 46B Major British Writers II ..................................... 3
ENGL 48A Mythology and Folklore ..................................... 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 and high school GPA
• 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.

Certificate of Competency in Academic Writing and Research Literacy

The certificate of competency in academic writing and research literacy is designed to accompany courses that prepare students for transfer to a four-year college or university. The noncredit courses needed for competency introduce students to academic composition, basic computer skills, library research, and web-based resources.

Learning Outcomes

1. Determined by in-class projects and quizzes. Write essays that are clearly organized, overall readable, and fully developed through the process of revision, editing, and proofreading.
2. Determined by in-class projects and quizzes. Demonstrate and apply basic computer technology skills necessary for the completion of college course work, including basic file management, e-mail, document creation, use of library tools, use of word-processing software for document creation, and Internet research.
3. Determined by in-class projects and quizzes. Apply basic technology skills to identify, locate, retrieve, evaluate, and use a variety of reliable information sources, both print and electronic, for specific college courses or course-related work.
4. Determined by in-class projects and quizzes. Understand and employ conventions of acknowledging the work of others.

Required Courses

ENGL 300 Academic Writing Workshop
CABT 500 Digital Literacy I
or
LIBR 500 Digital Literacy I
CABT 501 Digital Literacy II
or
LIBR 501 Digital Literacy II
English Courses

ENGL 1A  College Composition
3 units; 3 hours Lecture
Prerequisite: ENGL 100 or ESL 100 and ENGL 100L or ENGL 115.
Hybrid Requisite: LIBR 10.
Repeatability: May be taken a total of 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 1AH/1AMC/1AMCH. C-ID: ENGL 100

ENGL 1AH  Honors College Composition
3 units; 3 hours Lecture
Prerequisite: ENGL 100 or ESL 100 and ENGL 100L or ENGL 115; Honors Standing.
Hybrid Requisite: LIBR 10.
Repeatability: May be taken a total of 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 or ESL 100 and ENGL 100L or ENGL 115.
Hybrid Requisite: LIBR 10.
Repeatability: May be taken a total of 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/1AMCH. C-ID: ENGL 100

ENGL 1AMCH  Honors College Composition: Multicultural Emphasis
3 units; 3 hours Lecture
Prerequisite: ENGL 100 or ESL 100 and ENGL 100L or ENGL 115; Honors Standing.
Hybrid Requisite: LIBR 10.
Repeatability: May be taken a total of 1 time.
Emphasizes the expository essay and research paper; readings are used as models and topics for discussion. Honors section stresses rigorous analytic reading and writing. Students write a minimum of 8,000 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/1AMCH. 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 a total of 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 and LIBR 10 or LIBR 10H.
Repeatability: May be taken a total of 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.
Transfer Credit: Transfers to CSU; UC. Not open to students who have completed ENGL 1B/1BMC. C-ID: ENGL 120

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 a total of 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/1BMC. C-ID: ENGL 120
ENGL 1C  Advanced Composition  
3 units; 3 hours Lecture  
Prerequisite: ENGL 1B/1BH/1BMC or ENGL 2/2H/2MC/2MCH.  
Repeatability: May be taken a total of 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.  
Hybrid Requisite: LIBR 10 (may be taken concurrently).  
Recommended Preparation: ENGL 1B/1BH/1BMC.  
Repeatability: May be taken a total of 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.  
Hybrid Requisite: LIBR 10.  
Recommended Preparation: ENGL 1B/1BH/1BMC.  
Repeatability: May be taken a total of 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 2/2MC/2MCH. C-ID: ENGL 105  

ENGL 2MC  Composition and Critical Thinking: Multicultural Emphasis  
3 units; 3 hours Lecture  
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.  
Hybrid Requisite: LIBR 10.  
Recommended Preparation: ENGL 1B/1BH/1BMC.  
Repeatability: May be taken a total of 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 2/2H/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.  
Hybrid Requisite: LIBR 10.  
Recommended Preparation: ENGL 1B/1BH/1BMC.  
Repeatability: May be taken a total of 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/2MCH. C-ID: ENGL 105  

ENGL 12A  Fiction Writing  
3 units; 3 hours Lecture  
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.  
Repeatability: May be taken a total of 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, with limits: ENGL 12ABCEF maximum credit - 6 units per college.  

ENGL 12B  Creative Writing: Poetry  
3 units; 3 hours Lecture  
Prerequisite: Eligibility for ENGL 1A/1AH/1AMC/1AMCH.  
Repeatability: May be taken a total of 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, with limits: ENGL 12ABCEF maximum credit - 6 units per college.
ENGL 12C  Creative Writing: Film
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken a total of 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, with limits: ENGL 12ABCEF 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 a total of 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 12ABCEF maximum credit - 6 units per college.

ENGL 12F  Introduction to Creative Writing
3 units; 3 hours Lecture
Prerequisite: Eligibility for ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken a total of 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 12ABCEF 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 a total of 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: Eligibility for ENGL 1A/1AH/1AMC/1AMCH.
Recommended Preparation: ENGL 1B/1BH/1BMC.
Repeatability: May be taken a total of 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 a total of 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: ENCL 1B/1BH/1BMC.
Repeatability: May be taken a total of 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 23A  Reporting for the News Media
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken a total of 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: Eligibility for ENGL 1A.
Repeatability: May be taken a total of 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: Eligibility for ENGL 1A.
Repeatability: May be taken a total of 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 27A  Native American Literature and History I
3 units; 3 hours Lecture
Repeatability: May be taken a total of 1 time.
Surveys Native American history and literature from the 18th century to the early 20th century, examining the continuity of value systems and experience, as well as key differences between Native experiences in different times and places. Emphasis on the historical, philosophical, spiritual, political, and aesthetic contexts. May be offered in a Distance-Learning Format. ENGL 27A and HIST 27A are cross-listed courses. Students may enroll in either course for credit, but not both. Transfer Credit: Transfers to CSU; UC.

ENGL 27B  Native American Literature and History II
3 units; 3 hours Lecture
Repeatability: May be taken a total of 1 time.
Surveys Native American history and literature since the early 20th century, examining the continuity of value systems and experience, as well as key differences between Native experiences in different times and places. Emphasis on the historical, philosophical, spiritual, political, and aesthetic contexts. May be offered in a Distance-Learning Format. ENGL 27B and HIST 27B are cross-listed courses. Students may enroll in either course for credit, but not both. 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 a total of 1 time.
Surveys American literary and historical texts representing diverse voices through the 1860s, including Emerson, Whitman, and Dickinson; a variety of indigenous tales, speeches, and letters; colonial writers such as Columbus, Smith, Bradstreet, and Wheatley; captivity narratives from the African American slave experience, such as Equiano, Douglass, and Jacobs; and other canonical and under-represented texts and authors. Transfer Credit: Transfers to CSU; UC. C-ID: ENGL 130

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 a total of 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 34  Shakespeare
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Recommended Preparation: ENGL 1B/1BH/1BMC.
Repeatability: May be taken a total of 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
Prerequisite: Eligibility for ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken a total of 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 a total of 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 a total of 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 45  World Literature
3 units; 3 hours Lecture
Prerequisite: Eligibility for ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken a total of 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 a total of 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 with an Honors Contract.
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 a total of 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 with an Honors Contract.
Transfer Credit: Transfers to CSU; UC. C-ID: ENGL 165

ENGL 48A  Mythology and Folklore
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken a total of 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: Eligibility for ENGL 1A.
Repeatability: May be taken a total of 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
Prerequisite: Eligibility for ENGL 1A.
Repeatability: May be taken a total of 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
Co-requisite: ENGL 100L or ENGL 115.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

ENGL 100L  Writing Laboratory
1 unit; 2 hours Laboratory
Co-requisite: ENGL 100.
Repeatability: May be taken a total of 1 time.
Practice and study of grammar, sentence structure, punctuation, and style in student writing; students meet weekly in a small workshop. Pass/No Pass grading only. May be offered in a Distance-Learning Format.
Transfer Credit: Non-transferable.

ENGL 101A  College Composition Plus
2 units; 2 hours Lecture
Co-requisite: ENGL 1A/1AMC.
Repeatability: May be taken a total of 1 time.
Develops critical thinking in the context of reading, writing, and research and College Composition Plus is for students concurrently enrolled in English 1A: College Composition. This course builds reading, writing, and research literacy by connecting academic texts to the metacognitive processes of learning, including investigating the relationship between texts and the self, others, society, and the college environment. May be offered in a Distance-Learning Format. May be taken Pass/No Pass only.
Transfer Credit: Non-transferable.

ENGL 115  Lessons in Punctuation and Sentence Structure
1 unit; 1 hour Lecture
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.
ENGL 153  Spelling Lab
1 unit; 3 hours Laboratory
Repeatability: May be taken a total of 1 time.
Provides individualized instruction on spelling patterns and rules. May be offered in a Distance-Learning Format.
Transfer Credit: Non-transferable.

ENGL 280AZ  Topics in Second Language Grammar
3 units; 3 hours Lecture
Repeatability: May be taken a total of 1 time.
Remediates lingering problems in grammar, syntax, and idiom as supplementary courses for English language learners taking or qualifying for ENGL 100, 1A, or 1B.
Transfer Credit: Non-transferable.

ENGL 300  Academic Writing Workshop
0 units; 1-3 hours Laboratory
Develops academic writing skills, including sentence-level clarity, paragraph development, and essay organization, for students concurrently enrolled in ENGL 2. May be offered in a Distance-Learning Format.

ENGL 502L  Supervised Tutoring in Writing
0 units; 5 hours Laboratory
Studies individual tutorial assistance on college writing assignments; designed to support students who use writing tutorial services on an as-needed basis.

ENGL 549A  The Language of Film for Older Adults: Film History
0 units; 3 hours Lecture
Introduces students to the history of film, film technology, various film styles, genres, and movements, as well as helping them develop and apply a knowledge of film terminology and theories to critically analyze American and international cinema. This is a noncredit course for older adults taught with English 49A. Students should attend the 1st class meeting and may register in the 3rd week of classes.

ENGL 549B  The Language of Film for Older Adults: Special Topics in Film
0 units; 3 hours Lecture
Emphasizes the detailed study of a specific topic in film such as a single film genre or style; a particular director, screenwriter, or film star; the cinematic treatment of a theme, or the screen versions of literary works. Students should attend the 1st class meeting and will be allowed to register on the 1st day of the 3rd week of classes. This is a noncredit course taught with ENGL 49B.

ENGL 550A  Grammar Through Autobiography
0 units; 4 hours Lecture
Develops writing skills through autobiography emphasizing complete grammatical sentences.

ENGL 550B  Expressive Writing Through Autobiography
0 units; 4 hours Lecture
Develops writing skills through autobiography emphasizing sentence clarity and phrasing.

ENGLISH AS A SECOND LANGUAGE
Business, English, and Language Arts Division
James Weckler, Division Dean
Division Office, Room 301
Jason Malone, Department Chair (831) 479-5761
Aptos Counseling: (831) 479-6274 for appointment
Watsonville Counseling: (831) 786-4734
Call (831) 479-6478 for more information
http://www.cabrillo.edu/programs

English Literacy Certificate of Competency
The English Literacy Certificate of Competency is designed to show that a student has demonstrated proficiency in English literacy by successfully completing ESL 351A and 351B and can advance in the noncredit ESL sequence, attempting the Beginning ESL course sequence.
Learning Outcomes
Demonstrate comprehension of a limited range of simple spoken words drawn from learned material from the classroom. Engage in very limited conversation to express basic survival needs. Demonstrate ability to write isolated words, phrases and high-frequency expressions from learned material. Relate phonological sounds to letters and clusters of letters.
Required Courses
ESL 351A  ESL Literacy Low
and
ESL 351B  ESL Literacy Low

Beginning English Fluency Certificate of Competency
The Beginning English Fluency Certificate of Competency is designed to show a student has demonstrated proficiency in beginning English by successfully completing ESL 352A and 352B and can advance in the noncredit ESL sequence, attempting the Intermediate ESL courses.
Learning Outcomes
Demonstrate competent understanding of commonly used words and phrases in familiar contexts and be able to participate in simple conversations. Demonstrate limited comprehension of simplified reading material. Produce grammatically correct sentences related to survival skills and personal topics appropriate for Beginning-High ESL.
Required Courses
ESL 352A  ESL Beginning-Low
and
ESL 352B  ESL Beginning-High
Intermediate English Fluency Certificate of Competency

The Intermediate English Fluency Certificate of Competency shows that a student has demonstrated mastery in intermediate English by successfully completing ESL 353A and 353B and can move forward in the noncredit ESL sequence. Upon achieving this certificate, the student can advance to the academic credit ESL sequence.

Learning Outcomes

Demonstrate understanding of essential points of discussion or speeches of familiar or unfamiliar topics. Demonstrate ability to communicate with appropriate syntax and control of grammatical patterns in most extended conversations and interviews. Demonstrate understanding of simple authentic reading materials on common topics and interpret the meaning of readings on specialized topics. Demonstrate ability to write brief, paragraph length, compositions on previously discussed topics and exhibit control of basic grammatical patterns.

Required Courses

ESL 353A ESL Intermediate-Low and ESL 353B ESL Intermediate-High

Advanced English Fluency Certificate of Competency

The Advanced English Fluency Certificate of Competency shows that a student has demonstrated mastery in beginning English by successfully completing ESL 354A and 354B, effectively completing the noncredit ESL sequence. Upon achieving this certificate, the student can advance to the academic credit ESL sequence.

Learning Outcomes

Compose narrative, descriptive and opinion paragraphs that demonstrate clarity of expression, correct paragraph form, and command of basic grammatical structures. Demonstrate comprehension of main ideas found in authentic reading passages, both expository and fiction, using complete sentences that show command of basic grammatical structures. Demonstrate comprehension of main ideas found in listening passages using complete sentences that show command of basic grammatical structures.

Required Courses

ESL 354A ESL Advanced-Low Bridge to College 1 and ESL 354B ESL Advanced-High Bridge to College 2

English as a Second Language Courses

ESL 1A College Composition for ESL

3 units; 3 hours Lecture
Prerequisite: ENGL 100 or ESL 100.
Corequisite: ESL 15
Hybrid Requisite: LIBR 10
Repeatability: May be taken a total of 1 time.
Promotes standard college-level reading, writing, speaking and listening focusing on critical thinking skills, textual analysis, expository essay writing and research methods designed to prepare students for academic coursework across disciplines. This course is the equivalent of ENGL 1A. May be offered in a Distance-Learning Format. ESL 1A must be taken concurrently with ESL 15.
Transfer Credit: Transfers to CSU; UC pending review.
ESL 221A  ESL for Child Growth and Development
1 – 3 units; 1 – 3 hours Lecture
Repeatability: May be taken a total of 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 coursework. Designed for ECE part-time students.
Transfer Credit: Non-transferable.

ESL 221B  ESL for Early Childhood Curriculum
1 – 3 units; 1 – 3 hours Lecture
Repeatability: May be taken a total of 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 coursework. Designed for ECE students.
Transfer Credit: Non-transferable.

ESL 221C  ESL for Working with Young Children
1 – 3 units; 1 – 3 hours Lecture
Recommended Preparation: ESL 221B or appropriate assessment.
Repeatability: May be taken a total of 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 coursework. Designed for ECE students.
Transfer Credit: Non-transferable.

ESL 253  Low-Intermediate Academic ESL
4 – 6 units; 4 – 6 hours Lecture
Co-requisite: ESL 253L.
Repeatability: May be taken a total of 1 time.
Develops low intermediate reading, writing, listening and speaking skills in order to increase fluency in English and prepare students for future college coursework.
Transfer Credit: Non-transferable.

ESL 253L  Low-Intermediate Academic ESL Lab
0.5 – 2 units; 1.5 – 6 hours Laboratory
Repeatability: May be taken a total of 1 time.
Provides one-to-one and small group tutorial assistance for low-intermediate ESL students. The lab is staffed by ESL instructors and tutors who can help with English language writing, reading and listening comprehension. Pass/No Pass grading and operates on a drop-in or appointment basis.
Transfer Credit: Non-transferable.

ESL 254  High-Intermediate Academic ESL
4 – 6 units; 4 – 6 hours Lecture
Prerequisite: ESL 253.
Co-requisite: ESL 254L.
Repeatability: May be taken a total of 1 time.
Develops high intermediate reading, writing, listening and speaking skills in order to increase fluency in English and prepare students for future college coursework. Students will write a minimum of 6000 words in this course focusing on improved accuracy and usage.
Transfer Credit: Non-transferable.

ESL 254L  High-Intermediate Academic ESL Lab
0.5 – 2 units; 1.5 – 6 hours Laboratory
Prerequisite: ESL 253L.
Repeatability: May be taken a total of 1 time.
Provides one-to-one and small group tutorial assistance for high-intermediate ESL students. The lab is staffed by ESL instructors and tutors who can help with English language writing, reading and listening comprehension. Pass/No Pass grading and operates on a drop-in or appointment basis.
Transfer Credit: Non-transferable.

ESL 255  Low-Advanced Academic ESL
4 – 6 units; 4 – 6 hours Lecture
Prerequisite: ESL 254.
Co-requisite: ESL 255L.
Repeatability: May be taken a total of 1 time.
Develops advanced academic level reading, writing, listening, and speaking skills in order to increase fluency in English and prepare students for future college and university coursework. Students will write a minimum of 6000 words in this course focusing on improved accuracy and usage.
Transfer Credit: Non-transferable.

ESL 255L  Low-Advanced Academic ESL Lab
0.5 – 2 units; 1.5 – 6 hours Laboratory
Prerequisite: ESL 254L.
Repeatability: May be taken a total of 1 time.
Provides one-to-one and small group tutorial assistance for advanced ESL students. The lab is staffed by ESL instructors and tutors who can help with English language writing, reading and listening comprehension. This course is pass/no pass and operates on a drop-in or appointment basis.
Transfer Credit: Non-transferable.

ESL 256E  Extra Preparation for ESL 100
4 – 6 units; 4 – 6 hours Lecture
Prerequisite: ESL 255.
Co-requisite: READ 206SL.
Repeatability: May be taken a total of 1 time.
Provides students with extra practice in writing, reading and grammar at the basic level before they advance to ESL 100. Students will write a minimum of 6000 words in this course focusing on improved accuracy and usage.
Transfer Credit: Non-transferable.

ESL 260A  ESL Writing Improvement--Beginning Low Level
2 units; 2 hours Lecture
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units; Hours</th>
<th>Repeatability</th>
<th>Description</th>
<th>Transfer Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESL 260B</td>
<td>ESL Writing Improvement -- Beginning</td>
<td>2; 2 Lecture</td>
<td></td>
<td>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.</td>
<td>Non-transferable.</td>
</tr>
<tr>
<td>ESL 261A</td>
<td>ESL Writing Improvement -- Intermediate</td>
<td>2; 2 Lecture</td>
<td></td>
<td>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.</td>
<td>Non-transferable.</td>
</tr>
<tr>
<td>ESL 261B</td>
<td>ESL Writing Improvement -- Advanced</td>
<td>2; 2 Lecture</td>
<td></td>
<td>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.</td>
<td>Non-transferable.</td>
</tr>
<tr>
<td>ESL 270P</td>
<td>Pronunciation Improvement for ESL</td>
<td>1 – 4; 1 – 4 Lecture</td>
<td></td>
<td>Improves clarity of pronunciation for English language learners. Intensive focus on standard American English vowel sounds and basic stress and rhythm patterns.</td>
<td>Non-transferable.</td>
</tr>
<tr>
<td>ESL 271P</td>
<td>Accent Reduction for ESL Students</td>
<td>1 – 4; 1 – 4 Lecture</td>
<td></td>
<td>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.</td>
<td>Non-transferable.</td>
</tr>
<tr>
<td>ESL 280A-Z</td>
<td>ESL Special Topics</td>
<td>1 – 3; 1 – 3 Lecture</td>
<td></td>
<td>Designed for Second Language students who wish to focus on a specific area of English development. Each topic (A-Z) may be repeated twice.</td>
<td>Non-transferable.</td>
</tr>
<tr>
<td>ESL 351A</td>
<td>ESL Literacy-Low</td>
<td>0; 108 hours Lecture</td>
<td></td>
<td>Emphasizes listening, speaking, reading, and writing skills at a low literacy level. Students with no ability in English should begin here. Focuses on basic survival English skills, English sound/symbol correspondence, and reading and writing of simple English sentences covering topics such as the alphabet, numbers, colors, calendar information, time, and weather. May be offered in an Open Entry/Open Exit format.</td>
<td>Non-transferable.</td>
</tr>
<tr>
<td>ESL 351B</td>
<td>ESL Literacy-High</td>
<td>0; 108 hours Lecture</td>
<td></td>
<td>Recommended Preparation: ESL 351A. Emphasizes listening, speaking, reading and writing skills at a high literacy level. Focuses on survival English skills, English sound/symbol correspondence, and reading and writing of simple English sentences covering topics such as employment, health, community resources, and communication. May be offered in an Open Entry/Open Exit format.</td>
<td>Non-transferable.</td>
</tr>
<tr>
<td>ESL 352A</td>
<td>ESL Beginning-Low</td>
<td>0; 108 hours Lecture</td>
<td></td>
<td>Recommended Preparation: ESL 352A. Emphasizes listening/speaking and reading/writing skills at a beginning-low level. Focuses on understanding and participating in basic communication and conversation skills in routine social situations. Students read simple passages, and generate and write sentences related to basic communications, housing, food, health, and emergencies. May be offered in an Open Entry/Open Exit format.</td>
<td>Non-transferable.</td>
</tr>
<tr>
<td>ESL 352B</td>
<td>ESL Beginning-High</td>
<td>0; 108 hours Lecture</td>
<td></td>
<td>Recommended Preparation: ESL 352B. Emphasizes listening/speaking skills and reading/writing skills at a simple, intermediate level. Focuses on comprehending and engaging in extended conversations related to familiar contexts, such as housing, food, health, and transportation. Students read simple passages and use basic grammatical structures to clearly communicate ideas and convey messages. May be offered in an Open Entry/Open Exit format.</td>
<td>Non-transferable.</td>
</tr>
</tbody>
</table>
ESL 353B  ESL Intermediate-High
0 units; 108 hours Lecture
Recommended Preparation: ESL 353A.
Emphasizes listening/speaking skills and reading/writing skills at an intermediate level. Focuses on comprehending and engaging in extensive conversations related to many topics, both familiar and unfamiliar, such as employment, community resources, interpersonal communication, and personal growth. Students read simple adapted narrative and descriptive passages and use basic grammatical structures to write short, clearly organized paragraphs and messages. May be offered in an Open Entry/Open Exit format.

ESL 354A  ESL Advanced-Low Bridge to College 1
0 units; 108 hours Lecture
Recommended Preparation: ESL 353B.
Emphasizes listening/speaking and reading/writing skills at an advanced level for beginners who want to take college courses in the future. Focuses on comprehending and using more complex spoken and written English skills. Students participate in increasingly extended conversations on topics beyond survival needs, such as local culture or themes in stories. Develops skills to understand short reading passages as well as write clear and well-organized paragraphs. May be offered in an Open Entry/Open Exit format.

ESL 354B  ESL Advanced-High Bridge to College 2
0 units; 108 hours Lecture
Recommended Preparation: ESL 354A.
Emphasizes listening/speaking and reading/writing skills at an advanced level for beginners who plan to take college courses for credit during the next semester. Focuses on comprehending and using more complex spoken and written English skills on various topics that extend beyond survival needs. Develops skills to understand longer reading passages as well as write clear and well-organized paragraphs expressing opinions on more advanced topics. May be offered in an Open Entry/Open Exit format.

ESL 502  Supervised Tutoring in Writing
0 units; 5 hours Laboratory
Provides individual tutorial assistance on college writing assignments; designed to support students who use writing tutorial services on an as-needed basis.

ENVIRONMENTAL SCIENCE
Natural and Applied Sciences Division
Jamie Alonzo, Division Dean
Division Office, Room 701
David Schwartz, Department Chair, (831) 479-6495
Aptos Counseling: (831) 479-6274 for appointment
Watsonville Counseling: (831) 786-4734
Call (831) 479-6328 for more information
http://www.cabrillo.edu/programs

Environmental Science A.S.-T Transfer Degree
Environmental Science is an interdisciplinary study that examines the role of humans on the Earth and provides students with an understanding of the application of biological, chemical, and physical sciences to problems in the environment. Environmental Science also examines how human behavior and institutions affect the global environment. Topics typically include population biology, ecosystems, biodiversity, biochemistry, the chemistry of air and water pollution as well as geological processes and hazards and natural resources.

Students gain knowledge of fundamental concepts in the life sciences, physical sciences, and interdisciplinary natural sciences that inform society about the environment in which we live. The Associate in Science in Environmental Science for Transfer (A.S.-T in Environmental Science) prepares students for transfer to a 4-year university or technical program for further study to prepare for a wide variety of careers. Environmental scientists typically use their knowledge and skills to protect the environment and human health. They may clean up polluted areas, advise policymakers, or work with government and industry to reduce waste and improve conditions. Other career possibilities are academia, environmental law, environmental consulting, and resource management.

The Associate in Science in Environmental Science for Transfer (A.S.-T in Environmental Science) 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 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, or a “P” if the course is taken on a “Pass/No Pass” basis. *Note: This degree requires greater than 18 units in the major for completion.
- Certified completion of the California State University General Education-Breadth pattern (CSU GE Breadth) or the Intersegmental General Education Transfer Curriculum (IGETC) pattern.

Learning Outcomes
The Cabrillo College Core Competencies (with an emphasis in the study of Environmental Science):
1. Communication: Reading, Writing, Listening, Speaking, and/or Conversing
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving

CSU or IGETC for CSU General Education Requirements 31-33 Units

Core Courses
- BIO 9A Molecular, Cellular and Animal Biology ..................5
- BIO 9B Ecology, Evolution and Plant Biology ......................5
- CHEM 1A General Chemistry I ...........................................5

List A - Take 7 units from below
- ES 10 Introduction to Environmental Science .................3
  and
- GEOL 10 Physical Geology .............................................4
  or
- GEOG 1 Physical Geography ..........................................3
  and
- GEOG 1L Physical Geography Laboratory .........................1
and take a Statistics course plus Calculus: Units
- MATH 12 Elementary Statistics .......................................5
  or
- MATH 12H Honors Elementary Statistics ..........................5
  or
- PSYCH 2A Statistics for Behavioral Sciences .....................3
  and
- MATH 5A Analytical Geometry and Calculus I ..................3

List B - Take the two PHYS courses. ECON is optional. Units
- PHYS 4A Physics for Scientists and Engineers I ................5
  and
- PHYS 4B Physics for Scientists and Engineers II .............5
  or
- ECON 1B Introduction to Microeconomics ......................3

Total Units 60

Note: all courses in the major also meet general education requirements.

Environmental Science Courses

ES 10 Introduction to Environmental Science
3 units; 3 hours Lecture
Repeatability: May be taken a total of 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 effect the environment.
Transfer Credit: Transfers to CSU; UC.

ES 10L Introduction to Environmental Science Lab
1 unit; 3 hours Laboratory
Repeatability: May be taken a total of 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.

ES 15 Energy for a Sustainable Future
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 1 time.
Explores the personal, community, national, and global creation and use of energy in the past, present, and future including environmental effects, resource depletion, and climate change. Examines renewable energy technologies and paths to a sustainable energy future.
Transfer Credit: Transfers to CSU; UC.

ES 15L Energy for a Sustainable Future Lab
1 unit; 3 hours Laboratory
Co-requisite: Completion of or concurrent enrollment in ES 15.
Recommended Preparation: MATH 154 or equivalent skills.
Repeatability: May be taken a total of 1 time.
Presents hands-on exploration for topics associated with ES 15 such as physics of energy and power: measurement and generation, renewable energy, and conservation.
Transfer Credit: Transfers to CSU; UC.

FOREIGN LANGUAGES
see WORLD LANGUAGES page 335
FRENCH
Business, English, and Language Arts Division
James Weckler, Division Dean
Division Office, Room 301
Francisco Iñiguez, Department Chair, (831) 479-6407
Aptos Counseling: (831) 479-6274 for appointment
Watsonville Counseling: (831) 786-4734
Call (831) 479-6478 for more information
http://www.cabrillo.edu/programs

FR 1  Elementary French I
5 units; 4 hours Lecture, 3 hours Laboratory
Repeatability: May be taken a total of 1 time.
Develops speaking, listening comprehension, reading, and writing skills, with French as the primary language of instruction. Students communicate through class activities and begin study of French-speaking cultures. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC: Corresponds to two years of high school study.

FR 2  Elementary French II
5 units; 4 hours Lecture, 3 hours Laboratory
Prerequisite: FR 1 or two years of high school French, or equivalent skills.
Repeatability: May be taken a total of 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 continue study of French-speaking cultures. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC.

FR 3  Intermediate French I
5 units; 4 hours Lecture, 3 hours Laboratory
Prerequisite: FR 2 or equivalent skills.
Repeatability: May be taken a total of 1 time.
Further develops skills acquired in first-year French and reviews and expands grammar and vocabulary with French as the primary language of instruction. Students study French cultures through reading and discussion of literary and cultural texts and develop writing skills. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC.

FR 10  French Conversation
3 units; 3 hours Lecture
Prerequisite: FR 2 or equivalent skills.
Repeatability: May be taken a total of 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.

GENERAL EDUCATION
Students may earn a Certificate of Achievement in CSU General Education Breadth or in IGETC General Education.

Learning Outcomes
The Cabrillo College Core Competencies (with an emphasis in the study of General Education):
1. Communication: Reading, Writing, Listening, Speaking, and/or Conversing
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving

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)

See pages 56-59 of this Catalog
GENERAL SCIENCE

Natural and Applied Sciences Division

Jamie Alonzo, Division Dean
Division Office, Room 701
Aptos Counseling: (831) 479-6274 for appointment
Watsonville Counseling: (831) 786-4734
Call (831) 479-6328 for more information
www.cabrillo.edu/programs

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 Internet at www.assist.org.

Learning Outcomes
The Cabrillo College Core Competencies (with an emphasis in the study of General Science):
1. Communication: Reading, Writing, Listening, Speaking, and/or Conversing
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving

Model Program for General Science
This 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. This degree may be completed as a transferable Associate in Science degree with the addition of university admission requirements and increased general education requirements.

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 SCIENCE
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.S. Degree, in three of the five following areas. Cannot include CHEM 10, PHYS 10, ENGR 5 or 25 ......................................................... 20

Life Forms (defined in Area B in A.S. requirements)
Chemistry
Physics
Engineering
Earth and Space Sciences (Astronomy, Physical Geography, Geology, Meteorology, or Oceanography)
Mathematics
Mathematics: 5 units minimum from MATH 2 and MATH 3 or 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
Paul Harvell, Division Dean
Division Office, Room 420
Cheryl Barkey, Department Chair, (831) 479-6223
Deirdre Scholar, Program Contact, (831) 479-6346
Aptos Counseling: (831) 479-6274 for appointment
Watsonville Counseling: (831) 786-4734
Call (831) 479-6297 for more information
http://www.cabrillo.edu/programs

Geography A.A.-T Transfer Degree
The word Geography comes from ancient Greek language and means “to describe or write about the Earth.” 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 for understanding how places differ from one another and for interpreting and explaining Earth’s landscapes, peoples, places, and environments.

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. The Geography department offers courses that serve as a basis for broad liberal education and for upper-division study in Geography and Earth Sciences. Cabrillo offers options for degrees in Geography.

The first option listed below is the Associate in Arts in Geography for Transfer (A.A.-T in Geography), which is intended for students who plan to transfer and complete a bachelor’s degree in Geography or a similar major at a CSU campus. Students completing the Associate in Arts in Geography for Transfer (A.A.-T in Geography) are guaranteed admission to the CSU system, but not to a particular campus or major. This Associate in Arts in Geography for Transfer (A.A.-T in Geography) 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, or a “P” if the course is taken on a “Pass/No Pass” basis.
- Certified completion of the California State University General Education-Breadth pattern (CSU GE Breadth) or the Intersegmental General Education Transfer Curriculum (IGETC) pattern.

Learning Outcomes
The Cabrillo College Core Competencies (with an emphasis in the study of Geography):
1. Communication: Reading, Writing, Listening, Speaking, and/or Conversing
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving

CSU or IGETC for CSU General Education Requirements 37-39 Units
Core (7 Units)

GEOG 1 Physical Geography ......................................................... 3
GEOG 1L Physical Geography Laboratory .................................... 1
GEOG 2 Cultural Geography ........................................................ 3

List A-Select 6 units from:

GEOG 3 Introduction to Weather and Climate....................... 3
GEOG 4 World Regional Geography ........................................ 3
GEOG 5 California Geography .................................................. 3
GEOG 17 Introduction to Geographic Information Systems and Techniques ............... 3

List B-Select 6 units from:

ANTHR 1 Introduction to Anthropology: Biological ............... 3
or ANTHR 1H Honors Introduction to Anthropology: Biological ........ 3
ANTHR 2 or ANTHR 2H Honors Introduction to Anthropology: Cultural ........ 3
ANTHR 3 Introduction to Anthropology: Archaeology ........... 3
FR 3 Intermediate French I ...................................................... 5
GEOG 3L Weather and Climate Laboratory .......................... 1
GEOL 10 Physical Geology ..................................................... 4
GEOL 20 Historical Geology .................................................... 4
HORT 2 Soil Science and Management .................................. 4
ITAL 3 Intermediate Italian I .................................................. 5
MATH 12 Elementary Statistics ............................................... 5
or MATH 12H Honors Elementary Statistics ......................... 5
PSYCH 2A Statistics for Behavioral Sciences ..................... 3
OCEAN 10 Introduction to Oceanography ............................ 4
PS 3 International Relations .................................................. 3
SPAN 3 Intermediate Spanish I ............................................ 5
SPAN 4 Intermediate Spanish II ......................................... 5
or Any lower-division major preparation course articulated to the Similar Major at a CSU
Note: All courses are also general education courses.

Total Units 60
Geography A.A. Degree

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.

Learning Outcomes

The Cabrillo College Core Competencies (with an emphasis in the study of Geography):

1. Communication: Reading, Writing, Listening, Speaking, and/or Conversing
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving

A.A. General Education 30 Units

Core Courses (19 Units) 3 units

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<td>GEOG 3</td>
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<td>GEOG 4</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 5</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 17</td>
<td>3</td>
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</tbody>
</table>

Recommended Electives or any Course Numbered 1-99 (11 Units) 0-11 units

<table>
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<tr>
<th>Course Numbered Electives or any</th>
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<tr>
<td>ANTHR 2</td>
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<tr>
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<td>ANTHR 7</td>
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<td>3</td>
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<tr>
<td>ES 10</td>
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</tr>
<tr>
<td>GEOG 3L</td>
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</tr>
<tr>
<td>GEOL 15</td>
<td>3</td>
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<td>GEOL 20</td>
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<tr>
<td>HIST 24</td>
<td>3</td>
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<td>MATH 12</td>
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<td>MATH 12H</td>
<td>5</td>
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<tr>
<td>OCEAN 10</td>
<td>4</td>
</tr>
<tr>
<td>or any course numbered 1-99</td>
<td>0-11</td>
</tr>
</tbody>
</table>

Total Units 60

Geography Courses

GEOG 1  Physical Geography
3 units; 3 hours Lecture
Repeatability: May be taken a total of 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. C-ID: GEOG 110

GEOG 1L  Physical Geography Laboratory
1 unit; 3 hours Laboratory
Hybrid Requisite: Completion of or concurrent enrollment in GEOG 1. Eligibility for MATH 154.
Repeatability: May be taken a total of 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. C-ID: GEOG 111

GEOG 2  Cultural Geography
3 units; 3 hours Lecture
Repeatability: May be taken a total of 1 time.
Introduces the cultural geographic landscape including diverse human populations, their origins, diffusion, and current distributions. Examines demography, social customs, languages, religions, political units and nationalism, economic systems and development, urban systems, and environmental impacts. May be offered in Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC. C-ID: GEOG 120

GEOG 3  Introduction to Weather and Climate
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for Math 154.
Repeatability: May be taken a total of 1 time.
Introduces Earth’s atmosphere. Topics include: atmospheric structure and composition, solar radiation and energy balances, temperature, seasonal changes, atmospheric moisture, clouds and fog, precipitation, air pressure, winds, air masses and fronts, cyclones, weather forecasting, and climate and climate change. May be offered in Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC.

GEOG 3L  Weather and Climate Lab
1 unit; 3 hours Laboratory
Hybrid Requisite: Completion of or concurrent enrollment in GEOG 3.
Emphasizes the nature and causes of weather and climate using exercises, weather data, and hands-on instrument use. May be offered in Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC.
GEOG 4  World Regional Geography
3 units; 3 hours Lecture
Repeatability: May be taken a total of 1 time.
Surveys the world’s geographic regions as interpreted by geographers, including physical, cultural, and economic features. Emphasizes spatial and historical influences on population growth, states and natural environments. Highlights environmental issues and significant features of world regions.
Transfer Credit: Transfers to CSU; UC C-ID: GEOG 125

GEOG 5  California Geography
3 units; 3 hours Lecture
Repeatability: May be taken a total of 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. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC C-ID: GEOG 140

GEOG 17  Introduction to Geographic Information Systems and Techniques
3 units; 3 hours Lecture
Prerequisite: GEOG 1.
Repeatability: May be taken a total of 1 time.
Studies Geographic Information Systems (GIS) science and its applications to spatial data management. Identification and acquisition of GIS data. Assessment of vector and raster systems, scale, resolution, map projection, coordinate systems, georeferencing and Global Positioning Systems (GPS). Spatial analysis and modeling with GIS.
Transfer Credit: Transfers to CSU; UC C-ID: GEOG 155

GEOLOGY
Natural and Applied Sciences Division
Jamie Alonzo, Division Dean
Division Office, Room 701
David Schwartz, Department Chair, (831) 479-6495
Aptos Counseling: (831) 479-6274 for appointment
Watsonville Counseling: (831) 786-4734
Call (831) 479-6328 for more information
www.cabrillo.edu/programs

Geology A.S. -T Degree
Geology is the study of Earth materials and processes. The student with a transferable Associate in Science Degree in Geology is prepared to transfer into upper-division work in the major at four-year institutions and pursue a Bachelor’s degree or graduate degree. The major is available at UC and CSU systems, and at other colleges and universities. A masters or Ph.D. in this field will enable the graduate to pursue a wide variety of fields such as research, academia, engineering/consulting, geohydrology, seismology, volcanology, geophysics, glaciology, and economic geology (ore and hydrocarbon deposits).

Cabrillo offers options for degrees in Geology. The first option listed below is the Associate in Science in Geology for Transfer (A.S.-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 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 grade of “C” or better, or a “P” if the course is taken on a “pass/no pass” basis. *Note: this degree requires greater than 18 units in the major for completion.
Certified completion of the California State University General Education-Breadth pattern (CSU GE Breadth) or the Intersegmental General Education Transfer Curriculum (IGETC) pattern.

Learning Outcomes
The Cabrillo College Core Competencies (with an emphasis in the study of Geology):
1. Communication: Reading, Writing, Listening, Speaking, and/or Conversing.
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving.
CSU or IGETC for CSU General Education Requirements 37-39 Units

Take Required Courses (28 units)

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>CHEM 1A</td>
<td>General Chemistry I</td>
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</tr>
<tr>
<td>CHEM 1B</td>
<td>General Chemistry II</td>
<td>5</td>
</tr>
<tr>
<td>GEOL 10</td>
<td>Physical Geology</td>
<td>4</td>
</tr>
<tr>
<td>GEOL 20</td>
<td>Historical Geology</td>
<td>4</td>
</tr>
<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>
</tbody>
</table>

All courses are also general education courses.

Total Units 60

Geology A.S. Degree

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, vulcanology, geophysics, glaciology, and economic geology (ore and hydro-carbon deposits), to name a few. Geology and Earth Sciences are offered as majors at UC and CSU.

Learning Outcomes

The Cabrillo College Core Competencies (with an emphasis in the study of Geology):  
1. Communication: Reading, Writing, Listening, Speaking, and/or Conversing
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving

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. This degree may be completed as a transferable Associate in Science degree with the addition of university admission requirements and increased general education requirements.

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>GEOL 10</td>
<td>Physical Geology</td>
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<tr>
<td>CHEM 1A</td>
<td>General Chemistry I</td>
<td>5</td>
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<tr>
<td>CHEM 1B</td>
<td>General Chemistry II</td>
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<tr>
<td>MATH 5A</td>
<td>Analytic Geometry and Calculus I</td>
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<td>MATH 5B</td>
<td>Analytic Geometry and Calculus II</td>
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<tr>
<td>PHYS 4A</td>
<td>Physics for Scientists and Engineers I</td>
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<td>PHYS 4B</td>
<td>*Physics for Scientists and Engineers II</td>
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</tr>
<tr>
<td>PHYS 4C</td>
<td>**Physics for Scientists and Engineers III</td>
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<td>or</td>
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<tr>
<td>PHYS 2A</td>
<td>General Physics I</td>
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</tr>
<tr>
<td>PHYS 2B</td>
<td>**General Physics II</td>
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Approved Electives (0-2 Units)

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<th>Course</th>
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<tr>
<td>ENGR 1A</td>
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<tr>
<td>ES 10</td>
<td>Introduction to Environmental Science</td>
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<tr>
<td>GEOL 15</td>
<td>Environmental Geology</td>
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<tr>
<td>GEOL 20</td>
<td>Historical Geology</td>
<td>4</td>
</tr>
<tr>
<td>GEOL 25</td>
<td>Geology of National Parks</td>
<td>3</td>
</tr>
<tr>
<td>MATH 6</td>
<td>Introduction to Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>OCEAN 10</td>
<td>Introduction to Oceanography</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Units 60

*Fall only; **Spring only

Geology Courses

GEOL 10 Physical Geology

4 units; 3 hours Lecture, 3 hours Laboratory
Repeatability: May be taken a total of 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. C-ID: GEOL 101

GEOL 15 Environmental Geology

3 units; 3 hours Lecture
Repeatability: May be taken a total of 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**  
**Historical Geology**  
4 units; 3 hours Lecture, 3 hours Laboratory  
Repeatability: May be taken a total of 1 time.  
Introduces Earth's history with an emphasis on Western North America and California. Subjects include major mineral, rock and fossil groups, global tectonics, geologic time, stratigraphy, paleogeography, and the importance of the environment to evolution and the extinction of life forms. 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. C-ID: GEOL 110

**GEOL 25**  
**Geology of National Parks**  
3 units; 3 hours Lecture  
Repeatability: May be taken a total of 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 Park**  
1 unit; 1 hour Lecture, 0.5 hour Laboratory  
Repeatability: May be taken a total of 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. Camping fees may apply.  
*Transfer Credit:* Transfers to CSU.

**GEOL 30**  
**Field Geology of Point Lobos and Big Sur**  
1 unit; 0.75 hours Lecture, 0.75 hours Laboratory  
Repeatability: May be taken a total of 1 time.  
Presents a single 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**  
**Business, English, and Language Arts Division**  
James Weckler, Division Dean  
Division Office, Room 301  
Francisco Iñiguez, Department Chair, (831) 479-6407  
Aptos Counseling: (831) 479-6274 for appointment  
Watsonville Counseling: (831) 786-4734  
Call (831) 479-6478 for more information  
http://www.cabrillo.edu/programs

**GRMN 1**  
**Elementary German I**  
5 units; 4 hours Lecture, 3 hours Laboratory  
Repeatability: May be taken a total of 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. May be offered in a Distance-Learning Format.  
*Transfer Credit:* Transfers to CSU; UC. Corresponds to two years of high school study.

**GRMN 2**  
**Elementary German II**  
5 units; 4 hours Lecture, 3 hours Laboratory  
Prerequisite: GRMN 1 or two years of high school German, or equivalent skills.  
Repeatability: May be taken a total of 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. May be offered in a Distance-Learning Format.  
*Transfer Credit:* Transfers to CSU; UC.
HEALTH SCIENCE/COMMUNITY HEALTH

Health, Athletics, Wellness, and Kinesiology Division
Mark Ramsey, Associate Dean
Athletics, Kinesiology & Health Sciences
Division Office, Room 1102, (831) 479-6389
Aptos Counseling: (831) 479-6274 for appointment
Watsonville Counseling: (831) 786-4734
Call (831) 479-6266 for more information
http://www.cabrillo.edu/programs

Health Science/Community Health A.A. Degree

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.

Learning Outcomes

The Cabrillo College Core Competencies (with an emphasis in the study of Health Science):

1. Communication: Reading, Writing, Listening, Speaking, and/or Conversing
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving

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 - 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

<table>
<thead>
<tr>
<th>Course</th>
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<tr>
<td>BIO 4</td>
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<td>4</td>
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<tr>
<td>BIO 5</td>
<td>Human Physiology</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 30A</td>
<td>Inorganic Chemistry for Health Occupations</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 30B</td>
<td>Introductory Organic Chemistry and Biochemistry for Health Occupations</td>
<td>4</td>
</tr>
<tr>
<td>HS 10</td>
<td>Personal Health</td>
<td>3</td>
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<td>NUTR 20</td>
<td>Nutrition</td>
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Recommended from Related Disciplines:

<table>
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<th>Course</th>
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<tr>
<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>PSYCH 1</td>
<td>General Psychology</td>
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<td>or</td>
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<tr>
<td>or</td>
<td>SOC 1</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>SOC 1H</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>SOC 2</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>SOC 2H</td>
<td>3</td>
</tr>
<tr>
<td>SOCI 1H</td>
<td>Honors Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>Contemporary Social Problems</td>
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Electives:

<table>
<thead>
<tr>
<th>Course</th>
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<td>(Any Course Numbered 1-99)</td>
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</table>

Total Units: 60

Health Science/Community Health Courses

HS 10 Personal Health

3 units; 3 hours Lecture
Repeatability: May be taken a total of 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
Repeatability: May be taken a total of 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
Repeatability: May be taken a total of 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. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC.
HS 21  Health and Physical Fitness
3 units; 3 hours Lecture
Repeatability: May be taken a total of 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
Repeatability: May be taken a total of 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
Repeatability: May be taken a total of 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
Paul Harvell, Division Dean
Division Office, Room 420
Cheryl Barkey, Department Chair, (831) 479-6223
Michael Pebworth, Program Contact, (831) 477-3577
Aptos Counseling: (831) 479-6274 for appointment
Watsonville Counseling: (831) 786-4734
Call (831) 479-6297 or for more information
http://www.cabrillo.edu/programs

History A.A.-T Transfer Degree
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 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, or a “P” if the course is taken on a “Pass/No Pass” basis.

• Certified completion of the California State University General Education-Breadth pattern (CSU GE Breadth) or the Intersegmental General Education Transfer Curriculum (IGETC) pattern.

Learning Outcomes
The Cabrillo College Core Competencies (with an emphasis in the study of History):
1. Communication: Reading, Writing, Listening, Speaking, and/or Conversing
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving

CSU or IGETC for CSU General Education Requirements 37-39 Units
Core (6 units)

HIST 17A United States History to 1865 units
or
HIST 17AH Honors United States History to 1865 units
and
HIST 17B United States History since 1865 units
or
HIST 17BH Honors United States History since 1865 units

List A - Select 3 units from:
HIST 2A World History to 1500 units
or
HIST 4A Survey of Western Civilization to 1648 units
or
HIST 4AH Honors Survey of Western Civilization to 1648 units

And 3 units from:
HIST 2B World History: 1500 to Present units
or
HIST 4B Survey of Western Civilization—1648 to Late 20th Century units
or
HIST 4BH Honors Survey of Western Civilization—1648 to Late 20th Century units

List B - Select 3 units from:
Any course not used in List A above units
or
HIST 6 History of the Middle East units
HIST 14 Women in America units
or
HIST 14H Honors Women in America units
HIST 15 Recent American History units
HIST 16A Latin America to 1825 units
HIST 16B Latin America since 1825 units
HIST 16C History of Mexico units
HIST 19B Introduction to Chinese History units
HIST 19C Introduction to Japanese History units
HIST 21A Chicano History to 1865 units
HIST 21AH Honors Chicano History to 1865 units
HIST 21B Chicano History since 1865 units

Units
HIST 21BH Honors Chicano History since 1865 units
HIST 29A African American History to 1865 units
HIST 29B African American History since 1865 units

And 3 units from:
Any course not used in Lists A or B above units
Any History course articulated as fulfilling CSU GE Area C or D units
Any Foreign Language course units

PS 1 Introduction to Government units
or
PS 1H Honors Introduction to Government units
PS 2 Comparative Government units

Electives:
(Any Course Numbered 1-99) units

Note: All courses are also general education courses.

Total Units 60

History A.A. Degree

Learning Outcomes
The Cabrillo College Core Competencies (with an emphasis in the study of History):
1. Communication: Reading, Writing, Listening, Speaking, and/or Conversing
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving

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)

World History - choose one from the following:
HIST 2A World History to 1500 units
HIST 2B World History: 1500 to Present units
HIST 6 History of the Middle East units
HIST 16A Latin America to 1825 units
HIST 16B Latin America since 1825 units
HIST 16C History of Mexico units
HIST 19B Introduction to Chinese History units
HIST 19C Introduction to Japanese History units

Western Civilization: choose one from the following:
HIST 4A Survey of Western Civilization to 1648 units
or
HIST 4AH Honors Survey of Western Civilization to 1648 units
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

**United States History: choose one from the following:**

- **HIST 17A** United States History to 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 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 2A, HIST 6, HIST 16ABC, HIST 18AB, HIST 19BC, HIST 21AB, and HIST 29AB.

**Approved Electives: Choose 9-12 elective units from the following list:**

- **HIST 2A** World History to 1500 3
- **HIST 2B** World History: 1500 to Present 3
- **HIST 4A** Survey of Western Civilization to 1648 3
- **HIST 4AH** Honors Survey of Western Civilization to 1648 3
- **HIST 4B** Survey of Western Civilization—
1648 to Late 20th Century 3
- **HIST 4BH** Honors Survey of Western Civilization—
1648 to Late 20th Century 3
- **HIST 6** History of the Middle East 3
- **HIST 14** Women in America 3
- **HIST 14H** Honors Women in America 3
- **HIST 15** Recent American History 3
- **HIST 16C** History of Mexico 3
- **HIST 17A** United States History to 1865 3
- **HIST 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 19B** Introduction to Chinese History 3
- **HIST 19C** Introduction to Japanese History 3
- **HIST 20AZ** American Studies 1 - 3
- **HIST 21A** Chicano History to 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 24** History of California 3
- **HIST 25A** Santa Cruz County and the Monterey Bay Region since 1890 3
- **HIST 25B** Santa Cruz County and the Monterey Bay Region since 1890 3
- **HIST 26AZ** Topics in Local and Regional History 1 - 3
- **HIST 29A** African American History to 1865 3
- **HIST 29B** African American History since 1865 3
- **HIST 39AZ** Historical Studies 1 - 3

**From Related Disciplines: Choose 3-9 elective units from the following list:**

- **ANTHR 1** Introduction to Anthropology: Biological 3
- **ANTHR 1H** Honors Introduction to Anthropology: Biological 3
- **ANTHR 2** Introduction to Anthropology: Cultural 3
- **ANTHR 2H** Honors Introduction to Anthropology: Cultural 3
- **ANTHR 3** Introduction to Anthropology: Archaeology 3
- **ANTHR 4** Introduction to Anthropology: Cultural 3
- **ANTHR 6** Introduction to Anthropology: Physical 3
- **ANTHR 11H** Honors Introduction to Anthropology: Cultural 3
- **ANTHR 11** Introduction to Anthropology: Cultural 3
- **ANTHR 12H** Honors Introduction to Anthropology: Cultural 3
- **ANTHR 12** Introduction to Anthropology: Cultural 3
- **ANTHR 14** Introduction to Anthropology: Biological 3
- **ANTHR 14H** Honors Introduction to Anthropology: Biological 3
- **ANTHR 15** Introduction to Anthropology: Cultural 3
- **ANTHR 15H** Honors Introduction to Anthropology: Cultural 3
- **ANTHR 17** Introduction to Anthropology: Cultural 3
- **ANTHR 17H** Honors Introduction to Anthropology: Cultural 3

**Recommended Preparation:** Eligibility for ENGL 1A/1AH/1AMC/1AMCH.

**Transfer Credit:** Transfers to CSU; UC. C-ID: HIST 160

**Total Units**

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.

**Transfer Credit:** Transfers to CSU; UC. C-ID: HIST 150

**HIST 2B World History: 1500 to Present**

3 units; 3 hours Lecture

**Recommended Preparation:** Eligibility for ENGL 1A/1AH/1AMC/1AMCH.

**Transfer Credit:** Transfers to CSU; UC. C-ID: HIST 160
HIST 4A Survey of Western Civilization to 1648
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken a total of 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. May be offered in a Distance-Learning Format.
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 a total of 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. C-ID: HIST 170

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.
Repeatability: May be taken a total of 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. May be offered in a Distance-Learning Format. 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 a total of 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. C-ID: HIST 180

HIST 6 History of the Middle East
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken a total of 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.
Repeatability: May be taken a total of 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 11 The Era of the American Civil War
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken a total of 1 time.
Analyzes the causes, course, and results of what has been called the Second American Revolution. 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.
Repeatability: May be taken a total of 1 time.
Examines the social, economic, and political history of women, in the context of general U.S. History. Examines the role women have played in the United States and the changes that role has undergone. 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.

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 a total of 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.
Repeatability: May be taken a total of 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.
Repeatability: May be taken a total of 1 time.
Focuses on social, political, economic, and diplomatic history of Latin America from the Pre-Columbian period through the early 19th century. 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.
Repeatability: May be taken a total of 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.
Repeatability: May be taken a total of 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.
Repeatability: May be taken a total of 1 time.
Surveys American history, tracing the development of American ideals and institutions from the precolonial and colonial periods through the American Revolution, the establishment of the Constitution, early national and antebellum eras, and the Civil War. 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 a total of 1 time.
Surveys American history, tracing the development of American ideals and institutions from the precolonial and colonial periods through the American Revolution, the establishment of the Constitution, early national and antebellum eras, and the Civil War. Critical, analytical written work is the primary means of evaluation. 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. C-ID: HIST 140

HIST 17B  United States History since 1865
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken a total of 1 time.
Surveys American history, tracing the development of American ideals and institutions from the precolonial and colonial periods through the American Revolution, the establishment of the Constitution, early national and antebellum eras, and the Civil War. 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 a total of 1 time.
Surveys American history, tracing the development of American ideals and institutions from the precolonial and colonial periods through the American Revolution, the establishment of the Constitution, early national and antebellum eras, and the Civil War. May be offered in a Distance-Learning format. Satisfies U.S. History requirement. 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. C-ID: HIST 140

HIST 19B  Introduction to Chinese History
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken a total of 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.
<table>
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<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<th>Prerequisites</th>
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<td>HIST 19C</td>
<td>Introduction to Japanese History</td>
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<td>3</td>
<td>Repeatability: May be taken a total of 1 time.</td>
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<tr>
<td>HIST 20A-Z</td>
<td>American Studies</td>
<td>1 – 3</td>
<td>1 – 3</td>
<td>Repeatability: May be taken a total of 1 time.</td>
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<tr>
<td>HIST 21A</td>
<td>Chicano History to 1865</td>
<td>3</td>
<td>3</td>
<td>Repeatability: May be taken a total of 1 time.</td>
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<tr>
<td>HIST 21AH</td>
<td>Honors Chicano History to 1865</td>
<td>3</td>
<td>3</td>
<td>Repeatability: May be taken a total of 1 time.</td>
</tr>
<tr>
<td>HIST 21B</td>
<td>Chicano History since 1865</td>
<td>3</td>
<td>3</td>
<td>Repeatability: May be taken a total of 1 time.</td>
</tr>
<tr>
<td>HIST 21BH</td>
<td>Honors Chicano History since 1865</td>
<td>3</td>
<td>3</td>
<td>Repeatability: May be taken a total of 1 time.</td>
</tr>
<tr>
<td>HIST 23</td>
<td>History of Contemporary Chicano Movements</td>
<td>3</td>
<td>3</td>
<td>Repeatability: May be taken a total of 1 time.</td>
</tr>
<tr>
<td>HIST 24</td>
<td>History of California</td>
<td>3</td>
<td>3</td>
<td>Repeatability: May be taken a total of 1 time.</td>
</tr>
</tbody>
</table>
HIST 25A  Santa Cruz County and the Monterey Bay Region to 1890
3 units; 3 hours Lecture
Repeatability: May be taken a total of 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 contribution of ethnic minorities, women, and labor. Transfer Credit: Transfers to CSU.

HIST 25B  Santa Cruz County and the Monterey Bay Region since 1890
3 units; 3 hours Lecture
Repeatability: May be taken a total of 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 – 3 hours Lecture
Repeatability: May be taken a total of 1 time.
Analyzes various topics in the social, political, and economic history of the Monterey Bay Region. Transfer Credit: Transfers to CSU.

HIST 27A  Native American Literature and History I
3 units; 3 hours Lecture
Repeatability: May be taken a total of 1 time.
Surveys Native American history and literature from the 18th century to the early 20th century, examining the continuity of value systems and experience, as well as key differences between Native experiences in different times and places. Emphasis on the historical, philosophical, spiritual, political, and aesthetic contexts. May be offered in a Distance-Learning Format. HIST 27A and ENGL 27A are cross-listed courses. Students may enroll in either course for credit, but not both. Transfer Credit: Transfers to CSU; UC.

HIST 27B  Native American Literature and History II
3 units; 3 hours Lecture
Repeatability: May be taken a total of 1 time.
Surveys Native American history and literature since the early 20th century, examining the continuity of value systems and experience, as well as key differences between Native experiences in different times and places. Emphasis on the historical, philosophical, spiritual, political, and aesthetic contexts. May be offered in a Distance-Learning Format. HIST 27B and ENGL 27B are cross-listed courses. Students may enroll in either course for credit, but not both. Transfer Credit: Transfers to CSU; UC.

HIST 29A  African American History to 1865
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken a total of 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.
Repeatability: May be taken a total of 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 – 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken a total of 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 COURSES

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

ANTHR 1H, ANTHR 2H, AH 11H, AH 13H, 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*, HONRS 2H*, LIBR 10H, MATH 12H, PHILO 10H, PS 1H, PSYCH 1H, SOC 1H, SOC 2H

*Note: HONRS 1H and 2H do not transfer to the UC system.

HONORS 1H Honors Colloquium I
0.5 unit; 0.5 hour Lecture
Prerequisite: Honors Standing.
Recommended Preparation: ENGL 1A/1AH/1AMCH/1AMCH.
Repeatability: May be taken a total of 1 time.
Provides an interdisciplinary colloquium that introduces students to the seminar format, facilitates student transition into the Honors Program and guides students through the application process for the regional honors symposium.
Transfer Credit: Transfers to CSU.

HONORS 2H Honors Colloquium II
0.5 unit; 0.5 hour Lecture
Prerequisite: HONRS 1H; Honors Standing.
Recommended Preparation: ENGL 1A/1AH/1AMCH/1AMCH.
Repeatability: May be taken a total of 1 time.
Provides an interdisciplinary colloquium focused on refining presentation skills for the Honors Symposium.
Transfer Credit: Transfers to CSU.

Certificate of Achievement in Honors Scholar
Requirements: Participation in the Honors Transfer Program and completion of at least 16 units of honors courses with a 3.4 or higher transferable GPA. (total overall units for the Certificate is 16).
Nine (9) of the 16 units required must be completed from List A, “H” courses.
A maximum of six (6) units may be completed from List B courses with a Designated Honors Course Contract.
See the Honors Transfer Program webpage “Courses Available for Honors Credit” for the List A and List B courses.
Students achieving this Certificate of Achievement will have “Honors Scholar” posted on their transcript.
Petition for this Certificate of Achievement and Honors Scholar status will be processed by the Honors Transfer Program office. Information at Go.Cabrillo.edu/honors.

Total Units 16

HORTICULTURE

Natural and Applied Sciences Division

Jamie Alonzo, Division Dean
Division Office, Room 701
Peter Shaw, Department Chair, (831) 479-6241
Aptos Counseling: (831) 479-6274 for appointment
Watsonville Counseling: (831) 786-4734
Call (831) 479-6328 for more information
http://www.cabrillo.edu/programs

Agriculture Plant Science A.S.-T Transfer Degree
The Horticulture program prepares students for entry level to management jobs and self-employment in diverse horticulture businesses, as well as preparing students to transfer to the CSU to pursue baccalaureate degrees in Agriculture, Agriculture and Environmental Plant Sciences, Agricultural Education, and Sustainable Agriculture. Students will demonstrate knowledge of basic plant science, soil and soil testing, integrated pest management, evaluating the cost of production using different production techniques, and developing crop production plans for various crops. Careers related to this field include ornamental and edible crop production and landscape horticulture. The program also provides a foundation for students in Ornamental Horticulture and Landscape Architecture, and affords local horticulturists and working professionals the means to upgrade their skills and knowledge. Opportunities to obtain valuable experience are provided in the greenhouse/farm facility and by working to enhance campus landscapes.

1. Analyze a soil test and pest management plan to produce a common crop in Santa Cruz County.
2. Evaluate production techniques to achieve a cost-effective crop.

Cabrillo offers options for degrees in Agriculture. The first option listed below is the Associate in Science in Agriculture Plant Science for Transfer (A.S.-T in Agriculture Plant Science), which is intended for students who plan to transfer and complete a bachelor’s degree in Agriculture or a similar major at a CSU campus (CSU Chico, CSU Cal Poly Pomona and CSU Stanislaus). Students completing the Agriculture Plant Science for Transfer are guaranteed admission to the CSU system, but not to a particular campus or major. This Associate in Science in Agriculture Plant Science for Transfer A.S.-T 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 college also offers Horticulture degrees, including A.S. degrees in General and Crop Science. Separate Certificates of Achievement may be obtained in other areas of concentration, and eight Skills Certificates in Horticulture are available.

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, or a "P" if the course is taken on a "Pass/No Pass" basis.

• Certified completion of the California State University General Education-Breadth pattern (CSU GE Breadth) or the Intersegmental General Education Transfer Curriculum (IGETC) pattern.

Learning Outcomes

The Cabrillo College Core Competencies (with an emphasis in the study of Agriculture):

1. Communication: Reading, Writing, Listening, Speaking, and/or Conversing
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving

CSU or IGETC General Education Requirements

Core Courses - Take all Core Courses

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>HORT 1A</td>
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<td>MATH 12H</td>
<td>5</td>
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<tr>
<td>PSYCH 2A</td>
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List A - Select one course from:

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<th>Course</th>
<th>Units</th>
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<tbody>
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<td>HORT 62</td>
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<tr>
<td>or</td>
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<tr>
<td>HORT 63</td>
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</table>

List B - Other courses recommended, if needed on specific CSU campus requirements (see www.ASSIST.org):

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>BIO 11A</td>
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<tr>
<td>CHEM 1B</td>
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<td>HORT 1B</td>
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<tr>
<td>PHYS 10</td>
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<tr>
<td>PHYS 10L</td>
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</table>

Total Units

CSU or IGETC General Education Requirements: 37-39 units

General Horticulture & Crop Production A.S. Degree

Learning Outcomes

1. Analyze a soil test and pest management plan to produce a common crop in Santa Cruz County. (Communication, Critical Thinking)
2. Evaluate production techniques to achieve a cost-effective crop. (Communication, Global Awareness)

A.S. General Education Core Courses (37-41 units)

<table>
<thead>
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<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HORT 1A</td>
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</tr>
<tr>
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<td>HORT 54</td>
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<td>HORT 71</td>
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<tr>
<td>HORT 100A</td>
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<td>HORT 125</td>
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<td>HORT 150</td>
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Approved Electives:

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<td>Organic Agriculture</td>
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</tr>
<tr>
<td>Organic Food Production 1</td>
<td>4</td>
</tr>
<tr>
<td>Organic Food Production 2</td>
<td>1</td>
</tr>
<tr>
<td>Plant Propagation 1</td>
<td>3 - 3</td>
</tr>
<tr>
<td>Hydroponic and Substrate Production</td>
<td>3</td>
</tr>
<tr>
<td>Pest Management</td>
<td>4</td>
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</table>

Total Units: 60

General Horticulture and Crop Production Certificate of Achievement

Learning Outcomes

1. Analyze a soil test and pest management plan to produce a common crop in Santa Cruz County. (Communication, Critical Thinking)
2. Evaluate production techniques to achieve a cost-effective crop. (Communication, Global Awareness)

Core Courses (37-41 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>HORT 1A</td>
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</tr>
<tr>
<td>HORT 1B</td>
<td>4</td>
</tr>
<tr>
<td>HORT 2</td>
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<td>HORT 52</td>
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<td>HORT 54</td>
<td>3</td>
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<tr>
<td>HORT 58</td>
<td>3</td>
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<td>HORT 62</td>
<td>3</td>
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<tr>
<td>HORT 63</td>
<td>3</td>
</tr>
<tr>
<td>HORT 199C</td>
<td>1</td>
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<tr>
<td>HORT 70</td>
<td>4</td>
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</tbody>
</table>

BIO, CHEM, PHYS and all Statistics courses are also General Education courses.
HORT 71 Organic Food Production 1 ..............................................4
and
HORT 72 Organic Food Production 2 ..............................................1
HORT 100A Plant Propagation ..................................................1 - 3
HORT 125 Hydroponic and Substrate Production .................3
HORT 150 Pest Management ....................................................4

Other Required Courses (3-6 Units)  
ENGL 100 Elements of Writing .................................................3
or
ESL 100 High Advanced Academic ESL ......................................4-6
or
ENGL 1A/1AH/1AMC/1AMCH ..................................................3
or
CABT 157 Business and Technical Writing .............................3

Total Units 40-47

Landscape Horticulture A.S. Degree

Learning Outcomes
1. Analyze a soil test and pest management plan to produce a common crop in Santa Cruz County. (Communication, Critical Thinking)
2. Evaluate production techniques to achieve a cost-effective crop. (Communication, Global Awareness)

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 Systems Design and Management ............4
HORT 62 Fall Plant Materials and Design ...........................3
HORT 63 Spring Plant Materials and Design ........................3
HORT 65 Landscape CADD and Surveying ........................2
HORT 66 Landscape Design .................................................3
HORT 68 Landscape Design ..................................................3
HORT 150 Pest Management ..................................................4
HORT 164 California Native Plants & Plant Communities .... 2
HORT 172 Arboriculture .......................................................3
HORT 175 Sustainable Landscaping ....................................4
HORT 160B Edible Landscaping ............................................3
HORT 176 Permaculture Design .........................................3
HORT 177 Sustainable Landscaping ....................................4

Total Units 17

Arboriculture Skills Certificate

Learning Outcomes
1. Accurately identify local trees found in Santa Cruz County. (Critical Thinking, Professional Development)

Required Course  
HORT 62 Fall Plant Materials and Design ...........................3
HORT 63 Spring Plant Materials and Design ........................3
HORT 150 Pest Management ..................................................4
HORT 172 Arboriculture .......................................................3
HORT 173 Landscape Pruning ..............................................1
HORT 199C Career Work Experience Education ....................1

Total Units 15

General Horticulture Skills Certificate

Learning Outcomes
1. Analyze a soil test for suitability for common landscape plants. (Communication, Critical Thinking)

Required Courses  
HORT 1A Basic Horticulture .................................................4
HORT 1B Basic Horticulture: Crop Production .........................4
HORT 2 Soil Science and Management ..................................4
HORT 150 Pest Management ..................................................4
HORT 199C Career Work Experience Education ....................1

Total Units 17

Landscape Horticulture Certificate of Achievement

Learning Outcomes
1. Analyze a soil test and pest management plan to produce a common crop in Santa Cruz County. (Communication, Critical Thinking)
2. Evaluate production techniques to achieve a cost-effective crop. (Communication, Global Awareness)

Core Courses (39 units)

HORT 1A Basic Horticulture .................................................4
HORT 2 Soil Science and Management ..................................4
HORT 54 Business Aspects of Horticulture ..........................3
HORT 58 Irrigation Systems Design and Management ............4
Greenhouse and Nursery Management Skills Certificate

Learning Outcomes
1. Evaluate production techniques to achieve a cost effective crop. (Communication, Critical Thinking, Problem Solving)
2. Recommend appropriate propagation techniques for native nursery crops. (Communication, Problem Solving)

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HORT 1A</td>
<td>4</td>
</tr>
<tr>
<td>HORT 1B</td>
<td>4</td>
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<tr>
<td>HORT 52</td>
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<tr>
<td>Total Units</td>
<td>16-18</td>
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</tbody>
</table>

Landscape Design Skills Certificate

Learning Outcomes
1. Evaluate a local garden for sustainability. (Global Awareness, Professional Development)

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HORT 62</td>
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</tr>
<tr>
<td>HORT 63</td>
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<td>HORT 66</td>
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<td>HORT 175</td>
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<td>HORT 199C</td>
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</tr>
<tr>
<td>Total Units</td>
<td>16</td>
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</table>

Landscaping Skills Certificate

Learning Outcomes
1. Analyze a soil test for suitability for common landscape plants. (Communication, Critical Thinking)
2. Identify plants using correct botanical nomenclature and suggest proper use in a landscape. (Critical Thinking, Professional Development)

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HORT 2</td>
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<td>HORT 58</td>
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<tr>
<td>or HORT 63</td>
<td>3</td>
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<tr>
<td>HORT 65</td>
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<tr>
<td>HORT 175</td>
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</tr>
<tr>
<td>Total Units</td>
<td>17</td>
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</tbody>
</table>

Permaculture Skills Certificate

Learning Outcomes
1. Evaluate a site and identify its assets for permaculture.
2. Design a landscape using permaculture principles.

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HORT 2</td>
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<tr>
<td>HORT 58</td>
<td>4</td>
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<tr>
<td>HORT 160B</td>
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<tr>
<td>HORT 176</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td>14</td>
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</table>

Sustainable and Organic Food Production Skills Certificate

Learning Outcomes
1. Evaluate the best organic management practices for locally grown crops. (Global Awareness, Critical Thinking, Professional Development)
2. Evaluate a nutritional program for selected crops. (Critical Thinking, Professional Development)

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>HORT 2</td>
<td>4</td>
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<tr>
<td>HORT 70</td>
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<td>HORT 71</td>
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<td>HORT 125</td>
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<td>HORT 199C</td>
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</tr>
<tr>
<td>Total Units</td>
<td>17</td>
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</tbody>
</table>
Horticulture Courses

HORT 1A  Basic Horticulture
4 units; 3 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 1 time.
Introduces plant science including structure, growth process, physiology, soils, propagation, history, and plant adaptations for survival in a Mediterranean climate.
Transfer Credit: Transfers to CSU; UC. C-ID: AG-PS 104

HORT 1B  Basic Horticulture: Crop Production
4 units; 3 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 1 time.
Surveys the production and use of sustainable technology for greenhouse and nursery plants to gain a working knowledge of how light, temperature, water, fertilizers, and soilless media interact in a production environment. Also covers water sensors, light monitors and artificial lights, graphical tracking technology, pest management, and propagation of selected plants.
Transfer Credit: Transfers to CSU.

HORT 2  Soil Science and Management
4 units; 3 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 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. Includes the use and testing of soils for production plus septic and gray water systems.
Transfer Credit: Transfers to CSU; UC. C-ID: AG-PS 128L

HORT 52  Greenhouse Design and Operation
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 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
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 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  Sustainable Landscape Construction
3 units; 2 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 1 time.
Encompasses sustainable landscaping theories and practices including installing and maintaining ecologically sound landscapes through renovating existing gardens with appropriate hardscapes, plant selection, water conservation and irrigation.
Transfer Credit: Transfers to CSU.

HORT 58  Irrigation Systems Design and Management
4 units; 3 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 1 time.
Introduces the fundamentals of agricultural, residential, and commercial landscape irrigation systems design, and installation, monitoring using sensors and recalculations systems maintenance with an emphasis on the efficient use of irrigation water in the semi-arid Central Coast climate.
Transfer Credit: Transfers to CSU.

HORT 62  Fall Plant Materials and Design
3 units; 2 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 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, and plant selection software.
Transfer Credit: Transfers to CSU. C-ID: AG-EH 108L
HORT 63  Spring Plant Materials and Design  
3 units; 2 hours Lecture, 3 hours Laboratory  
Recommended Preparation: Eligibility for MATH 154.  
Repeatability: May be taken a total of 1 time.  
Covers the identification of the plants used in California 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.  
Transfer Credit: Transfers to CSU.

HORT 65  Landscape CADD and Surveying  
2 units; 1 hour Lecture, 3 hours Laboratory  
Recommended Preparation: Eligibility for MATH 154.  
Repeatability: May be taken a total of 1 time.  
Introduces Landscape Computer-Aided Design-and-Drafting software as well as measures and surveying fundamentals. Prepares for entry-level skills in the field of landscape design.  
Transfer Credit: Transfers to CSU.

HORT 66  Landscape Design  
3 units; 2 hours Lecture, 3 hours Laboratory  
Recommended Preparation: Eligibility for MATH 154.  
Repeatability: May be taken a total of 1 time.  
Presents principles of landscape design theory; analysis and functional diagrams; form and spatial composition; creative problem solving; and in-depth study of hardscape materials. Meet and work with an actual client while designing a typical residential landscape.  
Transfer Credit: Transfers to CSU.

HORT 70  Organic Agriculture  
4 units; 3 hours Lecture, 3 hours Laboratory  
Recommended Preparation: Eligibility for MATH 154.  
Repeatability: May be taken a total of 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 MATH 154.  
Repeatability: May be taken a total of 1 time.  
Continues the theory and practices of good management agriculture 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; UC.

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 MATH 154.  
Repeatability: May be taken a total of 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 – 3 units; 3 – 9 hours Laboratory  
Recommended Preparation: Eligibility for MATH 154.  
Repeatability: May be taken a total of 1 time.  
Introduces concepts and practices of growing crops hydroponically and with substrates including set up, nutrient solution preparation, lighting options, water conservation, vertical indoor greens, and pest control.  
Transfer Credit: Non-transferable.

HORT 125  Hydroponic and Substrate Production  
3 units; 2 hours Lecture, 3 hours Laboratory  
Recommended Preparation: Eligibility for MATH 154.  
Repeatability: May be taken a total of 1 time.  
Introduces concepts and practices of growing crops hydroponically and with substrates including set up, nutrient solution preparation, lighting options, water conservation, vertical indoor greens, and pest control.  
Transfer Credit: Non-transferable.

HORT 150  Pest Management  
4 units; 3 hours Lecture, 3 hours Laboratory  
Recommended Preparation: Eligibility for MATH 154.  
Repeatability: May be taken a total of 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.  
Transfer Credit: Non-transferable.
HORT 160B  Edible Landscaping
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

HORT 162A-Z  Current Topics in Horticulture
0.5 – 4 units; 0.5 – 4 hours Lecture or 1.5 – 12 hours Laboratory
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 1 time.
Presents 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.
Transfer Credit: Non-transferable.

HORT 164  California Native Plants & Plant Communities
2 units; 1 hour Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

HORT 172  Arboriculture
3 units; 2 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

HORT 173  Landscape Pruning
1 unit; 0.75 hours Lecture, 1.5 hours Laboratory
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 1 time.
Provides hands-on experience using pruning equipment and presents general and specific pruning techniques of common plants in the landscape including ornamental trees, shrubs and vines, roses, and fruit trees. Discusses the advantages and disadvantages of winter versus summer pruning and the selection of plants for special pruning techniques such as topiary, hedging, winter interest and blooming.
Transfer Credit: Non-transferable.

HORT 175  Sustainable Landscaping
4 units; 3 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

HORT 176  Permaculture Design
3 units; 2 hours Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 1 time.
Introduces principles and practices of permaculture design through collaboration on real-world projects with a focus towards repairing, restoring, and regenerating human ecosystems.
Transfer Credit: Non-transferable.
Human Services A.S. Degree

Designed for students and paraprofessionals, this program provides an introduction to the field of Human Services and explores issues and dynamics within the social services delivery system. A second specialization in Drug and Alcohol Studies prepares students for work in the Drug and Alcohol treatment field.

Students will participate in both an academic course of study and field 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.

Learning Outcomes

The Cabrillo College Core Competencies (with an emphasis in the study of Human Services.)

1. Communication: Reading, Writing, Listening, Speaking, and/or Conversing
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving
5. Social Science and Social Studies: History, Sociology, Anthropology, Economics, Philosophy, and Psychology
6. Natural Sciences: Biology, Chemistry, Physics, Earth Science, and Astronomy

A.S. General Education

Core Courses (26-28 units)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</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>HSERV 55A</td>
<td>Human Services Practicum I</td>
<td>1-2</td>
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<tr>
<td>HSERV 56A</td>
<td>Alcohol and Drug Human Services Practicum</td>
<td>1-2</td>
</tr>
<tr>
<td>PSYCH 1</td>
<td>General Psychology</td>
<td>3</td>
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<tr>
<td>or</td>
<td>PSYCH 1H Honors General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 33</td>
<td>Personal and Social Adjustment</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 39ABC</td>
<td>Relationships: Marriage and the Family</td>
<td>3</td>
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<tr>
<td>COMM 12</td>
<td>Intercultural Communication</td>
<td>3</td>
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<tr>
<td>SOC 2</td>
<td>Contemporary Social Problems</td>
<td>3</td>
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<tr>
<td>or</td>
<td>SOC 2H Honors Contemporary Social Problems</td>
<td>3</td>
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</table>

Choose one or two courses from the HSERV 55A/B, HSERV 56A/B series

Approved Electives from any course or specialty below (10 units)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>Any Human Services (HSERV) class</td>
<td>1-4</td>
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<tr>
<td>or</td>
<td>CABT 38 Introduction to Microsoft Office</td>
<td>3-4</td>
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<tr>
<td>or</td>
<td>CABT 101 Computer Proficiency</td>
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<td>or</td>
<td>CG 1 College Success</td>
<td>3</td>
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<td>or</td>
<td>ECE 31 Child Growth and Development</td>
<td>3</td>
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<td>or</td>
<td>ECE 32 Child, Family and Community</td>
<td>3</td>
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<tr>
<td>or</td>
<td>HSERV 55B Human Services Practicum II</td>
<td>1-2</td>
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<tr>
<td>or</td>
<td>HSERV 56B Alcohol and Drug/Human Services Practicum II</td>
<td>1-2</td>
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<tr>
<td>or</td>
<td>HS 10 Personal Health</td>
<td>3</td>
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<td>or</td>
<td>KIN 13 First Aid: Responding to Emergencies</td>
<td>3</td>
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<td>or</td>
<td>MA 184 Health Care Communication</td>
<td>3</td>
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<td>or</td>
<td>PSYCH 8 Introduction to Developmental Psychology</td>
<td>3</td>
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<td>or</td>
<td>PSYCH 31 Introduction to Abnormal Psychology</td>
<td>3</td>
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<tr>
<td>or</td>
<td>PSYCH 35ABC Death and Dying</td>
<td>3</td>
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<td>or</td>
<td>SPAN 1 Elementary Spanish I</td>
<td>5</td>
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<tr>
<td>or</td>
<td>WS 1 Introduction to Women's Studies</td>
<td>3</td>
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</table>

Drug and Alcohol Studies Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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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 60</td>
<td>Alcohol, Drugs, and Society</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>
<td>1</td>
</tr>
<tr>
<td>HSERV 164</td>
<td>Ethics: Personal and Professional Growth in the Human Services</td>
<td>2-4</td>
</tr>
</tbody>
</table>

Electives: (Any Course numbered 1-199) Units 1 - 4.5

Total Units 60
Human Services Certificate of Achievement

Learning Outcomes
The Cabrillo College Core Competencies (with an emphasis in the study of Human Services:
1. Communication: Reading, Writing, Listening, Speaking, and/or Conversing
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving

Human Services Core Courses (17-19 units) Units
HSERV 50 Introduction to the Human Services ....................... 3
HSERV 51 Practices in the Human Services............................ 3
HSERV 52 Introduction to Counseling and Case Management.......................................................... 3
HSERV 55A Human Services Practicum I .................................... 1-2
HSERV 56A Alcohol and Drug Human Services Practicum I .......................................................... 1-2
PSYCH 1 General Psychology ......................................................... 3
or
PSYCH 1H Honors General Psychology ........................................ 3
PSYCH 39ABC Relationships: Marriage and the Family ................. 3

Human Services Generalist Practice Core Courses (11-13 units) Units
COMM 12 Intercultural Communication ..................................... 3
HSERV 55B Human Services Practicum I .................................... 1-2
HSERV 56B Alcohol and Drug Human Services Practicum II .......................................................... 1-2
PSYCH 33 Personal and Social Adjustment ................................ 3
SOC 2 Contemporary Social Problems ................................... 3
or
SOC 2H Honors Contemporary Social Problems ................. 3

Other Required Courses (3-6 units) Units
ENGL 100 Elements of Writing .................................................... 3
or
ESL 100 High Advanced Academic ESL .................................. 4-6
or
ENGL 1A/1AH/1AMC/1AMCH .................................................... 3
or
CABT 157 Business and Technical Writing .................................. 3

Total Units 31 - 38

Skills Certificate in Human Services Drug and Alcohol Studies

Learning Outcomes
1. Analyze the history, and evolution of alcohol and drug treatment in human development and inter-relationship of the fields of Human Services.
2. Demonstrate basic skills in client engagement, counseling, and problem-solving and case management including multicultural awareness for entry level employment in the drug and alcohol treatment field.

Required Units
HSERV 50 Introduction to the Human Services ....................... 3
HSERV 52 Introduction to Counseling and Case Management .................................................................. 3
HSERV 55A Human Services Practicum I .................................... 1 - 2
and
HSERV 55B Human Services Practicum II .................................... 1 - 2
or
HSERV 56A Alcohol and Drug/Human Services Practicum I .......................................................... 1 - 2
and
HSERV 56B Alcohol and Drug/Human Services Practicum II .......................................................... 1 - 2
HSERV 60 Alcohol, Drugs, and Society ........................................ 3
HSERV 161 Alcoholism and Drug Addiction: Intervention, Treatment, and Recovery ................................... 3
HSERV 162 Physiology and Pharmacology: Alcohol and Other Drugs ......................................................... 3

Total Units 17-19

Skills Certificate in Human Services Generalist Practice

Learning Outcomes
1. Analyze the history and evolution of the Human Services, Mental Health, and Drug and Alcohol treatment in our society and its impact on service delivery.
2. Discuss underlying principles and demonstrate basic skills in client engagement, counseling, problem-solving, and case management including multicultural awareness for entry-level employment in the human services.

Required Units
HSERV 50 Introduction to the Human Services ....................... 3
HSERV 51 Practices in the Human Services............................ 3
HSERV 52 Introduction to Counseling and Case Management .................................................................. 3
HSERV 55A Human Services Practicum I .................................... 1-2
and
HSERV 55B Human Services Practicum II .................................... 1-2
or
HSERV 56A Alcohol and Drug Human Services Practicum I .......................................................... 1-2
and
HSERV 56B Alcohol and Drug Human Services Practicum II .......................................................... 1-2

Total Units 11-13
### Human Services Courses

**HSERV 50  Introduction to the Human Services**  
3 units; 3 hours Lecture  
Co-requisite: HSERV 55A or HSERV 56A.  
Repeatability: May be taken a total of 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  
Co-requisite: HSERV 55A or HSERV 56A.  
Recommended Preparation: HSERV 55A or HSERV 56A  
Repeatability: May be taken a total of 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  
Repeatability: May be taken a total of 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  
Repeatability: May be taken a total of 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 54  Mindfulness Based Stress Reduction**  
1 unit; 1 hour Lecture  
Repeatability: May be taken a total of 1 time.  
Introduces mindfulness meditation techniques and application of mindfulness practice. Assists students in understanding negative emotions and cultivating positive emotions in both work and relationships.  
*Transfer Credit:* Transfers to CSU; UC.

**HSERV 55A  Human Services Practicum I**  
1 – 2 units; 3 – 6 hours Laboratory  
Hybrid Requisite: HSERV 50 or 51  
Repeatability: May be taken a total of 1 time.  
Offers supervised experience in providing direct assistance to client systems at a beginning level while applying supportive engagement skills and problem solving strategies in community settings.  
*Transfer Credit:* Transfers to CSU.

**HSERV 55B  Human Services Practicum II**  
1 – 2 units; 3 – 6 hours Laboratory  
Prerequisite: HSERV 55A  
Repeatability: May be taken a total of 1 time.  
Offers an advanced supervised experience in providing direct assistance to client systems at an intermediate level while applying supportive engagement skills, multicultural competencies, and problem solving strategies in community settings.  
*Transfer Credit:* Transfers to CSU.

**HSERV 56A  Alcohol and Drug/Human Services Practicum I**  
1 – 2 units; 3 – 6 hours Laboratory  
Hybrid Requisite: HSERV 50 or 51  
Repeatability: May be taken a total of 1 time.  
Offers supervised experience in providing direct assistance to client systems at a beginning level, applying supportive engagement skills and problem solving strategies in alcohol and drug treatment settings in the community.  
*Transfer Credit:* Transfers to CSU.

**HSERV 56B  Alcohol and Drug/Human Services Practicum II**  
1 – 2 units; 3 – 6 hours Laboratory  
Prerequisite: HSERV 56A  
Repeatability: May be taken a total of 1 time.  
Offers a supervised experience in providing direct assistance to client systems at an intermediate level, applying supportive engagement skills, multicultural practices, and problem solving strategies in alcohol and drug treatment settings in the community.  
*Transfer Credit:* Transfers to CSU.

**HSERV 59A-Z  Special Topics in the Human Services**  
0.5 – 3 units; 0.5 – 3 hours Lecture  
Repeatability: May be taken a total of 1 time.  
Studies specific concepts, issues, and concerns within the Human Services field.  
*Transfer Credit:* Transfers to CSU.
HSERV 60  Alcohol, Drugs, and Society
3 units; 3 hours Lecture
Hybrid Requisite: HSERV 56A
Repeatability: May be taken a total of 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.
Transfer Credit: Transfers to CSU.

HSERV 161  Alcoholism and Drug Addiction: Intervention, Treatment, and Recovery
3 units; 3 hours Lecture
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

HSERV 162  Physiology and Pharmacology: Alcohol and Other Drugs
3 units; 3 hours Lecture
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

HSERV 163  Prevention: Alcohol and Other Drugs
1 unit; 1 hour Lecture
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

HSERV 164  Ethics: Personal and Professional Growth in the Human Services
2 – 4 units; 2 – 4 hours Lecture
Repeatability: May be taken a total of 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, counter-transference, stress management, and professional development.
Transfer Credit: Non-transferable.
ITALIAN Courses

ITAL 1 Elementary Italian I
5 units; 4 hours Lecture, 3 hours Laboratory
Repeatability: May be taken a total of 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. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC: Corresponds to two years of high school study.

ITAL 2 Elementary Italian II
5 units; 4 hours Lecture, 3 hours Laboratory
Prerequisite: ITAL 1 or equivalent skills.
Repeatability: May be taken a total of 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. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC.

ITAL 3 Intermediate Italian I
5 units; 4 hours Lecture, 3 hours Laboratory
Prerequisite: ITAL 2 or equivalent skills.
Repeatability: May be taken a total of 1 time.
Further develops skills acquired in first-year Italian and reviews and expands grammar and vocabulary, with Italian the primary language of instruction. Presents Italian culture through reading and discussion of literary and cultural texts and develops writing skills. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC.

ITAL 10 Italian Conversation
3 units; 3 hours Lecture
Prerequisite: ITAL 2 or equivalent skills.
Repeatability: May be taken a total of 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 Courses

JAPAN 1 Elementary Japanese I
5 units; 4 hours Lecture, 3 hours Laboratory
Repeatability: May be taken a total of 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. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC: Corresponds to two years of high school study.

JAPAN 2 Elementary Japanese II
5 units; 4 hours Lecture, 3 hours Laboratory
Prerequisite: JAPAN 1 or equivalent skills.
Repeatability: May be taken a total of 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. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC.

JAPAN 10 Italian Conversation
3 units; 3 hours Lecture
Prerequisite: ITAL 2 or equivalent skills.
Repeatability: May be taken a total of 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.
JOURNALISM
Business, English, and Language Arts Division
James Weckler, Division Dean
Division Office, Room 301
Bradley Kava, Department Chair, (831) 477-3206
Aptos Counseling: (831) 479-6274 for appointment
Watsonville Counseling: (831) 786-4734
Call (831) 479-6478 for more information
http://www.cabrillo.edu/programs

Journalism A.A. Degree
The Journalism transfer is designed to provide the lower division coursework needed for transfer to a 4-year university in Journalism or Mass Media. The major is available at most CSU campuses and some campuses of the University of California.

Learning Outcomes
The Cabrillo College Core Competencies (with an emphasis in the study of Journalism):
1. Communication: Reading, Writing, Listening, Speaking, and/or Conversing
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving

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

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<thead>
<tr>
<th>Core Courses (9 units)</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>JOURN 21</td>
<td>Mass Communications 3</td>
</tr>
<tr>
<td>JOURN 23A</td>
<td>Reporting for the News Media 3</td>
</tr>
<tr>
<td>ENGL 1B</td>
<td>Composition and Literature 3</td>
</tr>
<tr>
<td>or ENGL 18H</td>
<td>Honors Composition and Literature 3</td>
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<tr>
<td>or ENGL 18MC</td>
<td>Composition and Literature: Multicultural Emphasis 3</td>
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Approved Electives (11 Units)

<table>
<thead>
<tr>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ART 27</td>
</tr>
<tr>
<td>ART 28</td>
</tr>
<tr>
<td>AP 9A</td>
</tr>
<tr>
<td>JOURN 35</td>
</tr>
<tr>
<td>DM 1</td>
</tr>
<tr>
<td>COMM 10</td>
</tr>
<tr>
<td>ENGL 12A</td>
</tr>
<tr>
<td>MATH 12</td>
</tr>
<tr>
<td>MATH 12H</td>
</tr>
<tr>
<td>or BUS 9</td>
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<table>
<thead>
<tr>
<th>Electives:</th>
<th>Units</th>
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<tbody>
<tr>
<td>(Any Course Numbered 1-99)</td>
<td>10</td>
</tr>
</tbody>
</table>

Total Units: 60

Journalism Certificate of Achievement

Learning Outcomes
The Cabrillo College Core Competencies (with an emphasis in the study of Journalism):
1. Communication: Reading, Writing, Listening, Speaking, and/or Conversing
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving

Core Courses

<table>
<thead>
<tr>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>JOURN 21</td>
</tr>
<tr>
<td>JOURN 23A</td>
</tr>
<tr>
<td>JOURN 54A</td>
</tr>
<tr>
<td>JOURN 54B</td>
</tr>
<tr>
<td>JOURN 54C</td>
</tr>
</tbody>
</table>

Approved Electives (6 Units)

<table>
<thead>
<tr>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AP 9A</td>
</tr>
<tr>
<td>ART 27</td>
</tr>
<tr>
<td>ART 28</td>
</tr>
<tr>
<td>JOURN 2</td>
</tr>
<tr>
<td>JOURN 35</td>
</tr>
<tr>
<td>JOURN 199C</td>
</tr>
<tr>
<td>DM 1</td>
</tr>
<tr>
<td>DM 2</td>
</tr>
<tr>
<td>COMM 10</td>
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</table>

Other Required Courses (3 units)

<table>
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<tr>
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<tbody>
<tr>
<td>ENGL 100</td>
</tr>
<tr>
<td>or ESL 100</td>
</tr>
<tr>
<td>or ENGL 1A/1AH/1AMC/1AMCH</td>
</tr>
</tbody>
</table>

Total Units: 18-21
Journalism Courses

**JOURN 2**  
**Special Projects in Journalism**  
1 – 3 units; 1 – 3 hours Lecture  
Repeatability: May be taken a total of 1 time.  
This course concentrates on some dimension or aspect of journalism not covered in regular journalism courses.  
*Transfer Credit:* Transfers to CSU.

**JOURN 21**  
**Mass Communications**  
3 units; 3 hours Lecture  
Repeatability: May be taken a total of 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.  
Repeatability: May be taken a total of 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.

**JOURN 35**  
**Writing for the Broadcast Media**  
3 units; 3 hours Lecture  
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.  
Repeatability: May be taken a total of 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 54A**  
**Newspaper Production: Reporting and Photography**  
1 unit; 3 hours Laboratory  
Recommended Preparation: DM 2 or equivalent skills.  
Repeatability: May be taken a total of 1 time.  
Introduces design techniques and software to produce page layouts for the college newspaper, focusing on reporting and photography.  
*Transfer Credit:* Transfers to CSU.
KINESIOLOGY

Health, Athletics, Wellness, and Kinesiology Division
Mark Ramsey, Associate Dean
Athletics, Kinesiology & Health Sciences
Division Office, Room 1102, (831) 479-6389
Aptos Counseling: (831) 479-6274 for appointment
Watsonville Counseling: (831) 786-4734
Call (831) 479-6266 for more information
http://www.cabrillo.edu/programs

Kinesiology A.A.-T Transfer Degree
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 Bachelors 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 insure major preparation for their preferred campus.

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, or a “P” if the course is taken on a “Pass/No Pass” basis.
• Certified completion of the California State University General Education- Breadth pattern (CSU GE Breadth) or the Intersegmental General Education Transfer Curriculum (IGETC) pattern.

Learning Outcomes
The Cabrillo College Core Competencies (with an emphasis in the study of Kinesiology):
1. Communication: Reading, Writing, Listening, Speaking, and/or Conversing
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving


CSU or IGETC for CSU General Education Requirements 37-39 Units

Core Courses (11 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
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<tbody>
<tr>
<td>KIN 2</td>
<td>Introduction to Kinesiology</td>
<td>3</td>
</tr>
<tr>
<td>BIO 4</td>
<td>Human Anatomy</td>
<td>4</td>
</tr>
<tr>
<td>BIO 5</td>
<td>Human Physiology</td>
<td>4</td>
</tr>
</tbody>
</table>

Movement Based Courses
You must take one course from three of the four different areas for an overall 3-unit minimum. One 3-unit course will not complete the Movement-Based Course requirement. Each course should be taken for 1 unit. Other KIN and DANCE courses may be used for the Movement Based Courses requirement if they are documented as lower-division major preparation for the Similar Major at a CSU. Students may also substitute a higher level course (i.e. level B or C).

Aquatics Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>KIN 60A</td>
<td>Beginning Swimming</td>
<td>0.5-2</td>
</tr>
<tr>
<td>KIN 60B</td>
<td>Intermediate Swimming</td>
<td>0.5-2</td>
</tr>
<tr>
<td>KIN 61A</td>
<td>Beginning Swim Fitness</td>
<td>0.5-2</td>
</tr>
<tr>
<td>KIN 61B</td>
<td>Intermediate Swim Fitness</td>
<td>0.5-2</td>
</tr>
<tr>
<td>KIN 62A</td>
<td>Beginning Water Aerobics</td>
<td>0.5-2</td>
</tr>
<tr>
<td>KIN 62B</td>
<td>Intermediate Water Aerobics</td>
<td>0.5-2</td>
</tr>
<tr>
<td>KIN 63A</td>
<td>Beginning Water Polo</td>
<td>0.5-2</td>
</tr>
<tr>
<td>KIN 63B</td>
<td>Intermediate Water Polo</td>
<td>0.5-2</td>
</tr>
<tr>
<td>KIN 63C</td>
<td>Advanced Water Polo</td>
<td>0.5-2</td>
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</table>

Dance Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>DANCE 2A</td>
<td>Introduction to Dance</td>
<td>0.5-3</td>
</tr>
<tr>
<td>DANCE 2B</td>
<td>Introduction to Dance II</td>
<td>0.5-3</td>
</tr>
<tr>
<td>DANCE 4</td>
<td>Contemporary Modern Dance I</td>
<td>0.5-3</td>
</tr>
<tr>
<td>DANCE 5</td>
<td>Contemporary Modern Dance II</td>
<td>0.5-3</td>
</tr>
<tr>
<td>DANCE 7</td>
<td>Ballet I</td>
<td>0.5-3</td>
</tr>
<tr>
<td>DANCE 8</td>
<td>Ballet II</td>
<td>0.5-3</td>
</tr>
<tr>
<td>DANCE 9A</td>
<td>Jazz Dance I</td>
<td>0.5-3</td>
</tr>
<tr>
<td>DANCE 9B</td>
<td>Jazz Dance II</td>
<td>0.5-3</td>
</tr>
<tr>
<td>DANCE 10A</td>
<td>Intermediate Jazz Dance I</td>
<td>0.5-3</td>
</tr>
<tr>
<td>DANCE 10B</td>
<td>Intermediate Jazz Dance II</td>
<td>0.5-3</td>
</tr>
<tr>
<td>DANCE 12A</td>
<td>Choreography I</td>
<td>0.5-3</td>
</tr>
<tr>
<td>DANCE 15A</td>
<td>Salsa Dance I</td>
<td>0.5-3</td>
</tr>
<tr>
<td>DANCE 15B</td>
<td>Salsa Dance II</td>
<td>0.5-3</td>
</tr>
<tr>
<td>DANCE 16A</td>
<td>Baile Folklórico: Regional</td>
<td>0.5-3</td>
</tr>
<tr>
<td>DANCE 16B</td>
<td>Danzas de Mexico I</td>
<td>0.5-3</td>
</tr>
<tr>
<td>DANCE 17A</td>
<td>Latin Dance I</td>
<td>0.5-3</td>
</tr>
<tr>
<td>DANCE 17B</td>
<td>Latin Dance II</td>
<td>0.5-3</td>
</tr>
<tr>
<td>DANCE 18A</td>
<td>African Dance I</td>
<td>0.5-3</td>
</tr>
<tr>
<td>DANCE 19A</td>
<td>Hip Hop Dance I</td>
<td>0.5-3</td>
</tr>
<tr>
<td>DANCE 19B</td>
<td>Hip Hop Dance II</td>
<td>0.5-3</td>
</tr>
<tr>
<td>DANCE 21A</td>
<td>Ballroom Dance I</td>
<td>0.5-3</td>
</tr>
<tr>
<td>DANCE 21B</td>
<td>Ballroom Dance II</td>
<td>0.5-3</td>
</tr>
<tr>
<td>DANCE 81</td>
<td>Swing Dance</td>
<td>0.5-3</td>
</tr>
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Fitness Courses

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<thead>
<tr>
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<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>DANCE 3AP</td>
<td>Dance Conditioning/Pilates I</td>
<td>0.5-3</td>
</tr>
<tr>
<td>DANCE 3BP</td>
<td>Dance Conditioning/Pilates II</td>
<td>0.5-3</td>
</tr>
<tr>
<td>KIN 22L</td>
<td>Strength Training</td>
<td>0.5-3</td>
</tr>
<tr>
<td>KIN 23A</td>
<td>Fitness and Conditioning I</td>
<td>0.5-1</td>
</tr>
<tr>
<td>KIN 23B</td>
<td>Fitness and Conditioning II</td>
<td>0.5-1</td>
</tr>
<tr>
<td>KIN 24L</td>
<td>Lifetime Fitness</td>
<td>0.5-3</td>
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<td>Course Title</td>
<td>Units</td>
</tr>
<tr>
<td>------------</td>
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</tr>
<tr>
<td>KIN 27A</td>
<td>Beginning Weight Training</td>
<td>0.5-2</td>
</tr>
<tr>
<td>KIN 27AL</td>
<td>Weight Training Lab A</td>
<td>0.5-2</td>
</tr>
<tr>
<td>KIN 27B</td>
<td>Intermediate Weight Training</td>
<td>0.5-2</td>
</tr>
<tr>
<td>KIN 27BL</td>
<td>Weight Training Lab B</td>
<td>0.5-2</td>
</tr>
<tr>
<td>KIN 31A</td>
<td>Beginning Total Fitness</td>
<td>0.5-2</td>
</tr>
<tr>
<td>KIN 31AL</td>
<td>Total Fitness Lab A</td>
<td>0.5-2</td>
</tr>
<tr>
<td>KIN 31B</td>
<td>Intermediate Total Fitness</td>
<td>0.5-2</td>
</tr>
<tr>
<td>KIN 31BL</td>
<td>Total Fitness Lab B</td>
<td>0.5-2</td>
</tr>
<tr>
<td>KIN 34A</td>
<td>Bootcamp Fitness I</td>
<td>0.5-2</td>
</tr>
<tr>
<td>KIN 34B</td>
<td>Bootcamp Fitness II</td>
<td>0.5-2</td>
</tr>
<tr>
<td>KIN 35A</td>
<td>Beginning Cross Training</td>
<td>0.5-2</td>
</tr>
<tr>
<td>KIN 35B</td>
<td>Intermediate Cross Training</td>
<td>0.5-2</td>
</tr>
<tr>
<td>KIN 37A</td>
<td>Beginning Hatha Yoga</td>
<td>0.5-2</td>
</tr>
<tr>
<td>KIN 37B</td>
<td>Intermediate Hatha Yoga</td>
<td>0.5-2</td>
</tr>
<tr>
<td>KIN 38A</td>
<td>Beginning Yoga and Stress Reduction</td>
<td>0.5-2</td>
</tr>
<tr>
<td>KIN 38B</td>
<td>Intermediate Yoga and Stress Reduction</td>
<td>0.5-2</td>
</tr>
<tr>
<td>KIN 39A</td>
<td>Beginning Gyrokinesis Movement Yoga</td>
<td>0.5-2</td>
</tr>
<tr>
<td>KIN 39B</td>
<td>Intermediate Gyrokinesis Movement Yoga</td>
<td>0.5-2</td>
</tr>
<tr>
<td>KIN 55</td>
<td>Sports Conditioning</td>
<td>0.5-3</td>
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</tbody>
</table>

**Team and Individual Sports courses**

*Note: KIN 53A may be used if taken before Spring, 2014*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>KIN 40A</td>
<td>Beginning Golf</td>
<td>0.5-2</td>
</tr>
<tr>
<td>KIN 40B</td>
<td>Intermediate Golf</td>
<td>0.5-2</td>
</tr>
<tr>
<td>KIN 41A</td>
<td>Beginning Golf Course Play</td>
<td>0.5-2</td>
</tr>
<tr>
<td>KIN 41B</td>
<td>Intermediate Golf Course Play</td>
<td>0.5-2</td>
</tr>
<tr>
<td>KIN 43A</td>
<td>Beginning Tennis</td>
<td>0.5-2</td>
</tr>
<tr>
<td>KIN 43B</td>
<td>Intermediate Tennis</td>
<td>0.5-2</td>
</tr>
<tr>
<td>KIN 43C</td>
<td>Advanced Tennis</td>
<td>0.5-2</td>
</tr>
<tr>
<td>KIN 46B</td>
<td>Intermediate Baseball</td>
<td>0.5-2</td>
</tr>
<tr>
<td>KIN 47A</td>
<td>Beginning Basketball</td>
<td>0.5-2</td>
</tr>
<tr>
<td>KIN 47B</td>
<td>Intermediate Basketball</td>
<td>0.5-2</td>
</tr>
<tr>
<td>KIN 50A</td>
<td>Beginning Soccer</td>
<td>0.5-2</td>
</tr>
<tr>
<td>KIN 51A</td>
<td>Beginning Indoor Soccer-Futsal</td>
<td>0.5-2</td>
</tr>
<tr>
<td>KIN 51B</td>
<td>Intermediate Indoor Soccer-Futsal</td>
<td>0.5-2</td>
</tr>
<tr>
<td>KIN 52A</td>
<td>Beginning Ultimate Frisbee</td>
<td>0.5-2</td>
</tr>
<tr>
<td>KIN 53B</td>
<td>Intermediate Softball</td>
<td>0.5-2</td>
</tr>
<tr>
<td>KIN 54A</td>
<td>Beginning Volleyball</td>
<td>0.5-2</td>
</tr>
<tr>
<td>KIN 54B</td>
<td>Intermediate Volleyball</td>
<td>0.5-2</td>
</tr>
<tr>
<td>KIN 54C</td>
<td>Advanced Volleyball</td>
<td>0.5-2</td>
</tr>
<tr>
<td>KIN 56A</td>
<td>Beginning Beach Volleyball</td>
<td>0.5-2</td>
</tr>
<tr>
<td>KIN 56B</td>
<td>Intermediate Beach Volleyball</td>
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</tbody>
</table>

**List A - Take two courses from two different departments:**

**BIO, CHEM, First Aid, Statistics and PHYS. (6-10 Units)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>BIO 9A</td>
<td>Molecular, Cellular, and Animal Biology</td>
<td>5</td>
</tr>
<tr>
<td>BIO 9B</td>
<td>Ecology, Evolution, and Plant Biology</td>
<td>5</td>
</tr>
<tr>
<td>BIO 11A</td>
<td>General Biology</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 30A</td>
<td>Inorganic Chemistry for Health Occupations</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 30B</td>
<td>Introductory Organic Chemistry and Biochemistry</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 1A</td>
<td>General Chemistry I</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 32</td>
<td>Chemistry for the Allied Health Major</td>
<td>5</td>
</tr>
<tr>
<td>KIN 13</td>
<td>First Aid: Responding to Emergencies</td>
<td>3</td>
</tr>
<tr>
<td>MATH 12</td>
<td>Elementary Statistics</td>
<td>5</td>
</tr>
<tr>
<td>MATH 12H</td>
<td>Honors Elementary Statistics</td>
<td>5</td>
</tr>
<tr>
<td>PSYCH 2A</td>
<td>Statistics for Behavioral Sciences</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 2A</td>
<td>General Physics I</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 4A</td>
<td>Physics for Scientists and Engineers I</td>
<td>5</td>
</tr>
<tr>
<td>PHYS 10</td>
<td>Introduction to Physics</td>
<td>3</td>
</tr>
</tbody>
</table>

**PHYS 10L** Introduction to Physics Lab ........................................ 1

*Note: BIO, MATH, CHEM, PHYS and PSYCH courses are also general education courses.*

**Total Units**

60

**Kinesiology A.A. Degree**

**Learning Outcomes**

The Cabrillo College Core Competencies (with an emphasis in the study of Kinesiology):

1. Communication: Reading, Writing, Listening, Speaking, and/or Conversing

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


**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.

Most KIN activity courses may be used to meet general education Area E, Lifelong Understanding and Self-Development for Cabrillo's non-transferable Associate degrees, when combined with other non-activity Area E units from the CG or ECE departments.
## A.A. General Education

### Core Courses (15 units)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
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<tbody>
<tr>
<td>BIO 4</td>
<td>Human Anatomy</td>
<td>4</td>
</tr>
<tr>
<td>BIO 5</td>
<td>Human Physiology</td>
<td>4</td>
</tr>
<tr>
<td>KIN 2</td>
<td>Introduction to Kinesiology</td>
<td>3</td>
</tr>
<tr>
<td>KIN Activity Classes</td>
<td></td>
<td>4</td>
</tr>
</tbody>
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### Approved Electives (6 Units)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>KIN 4</td>
<td>Introduction to Personal Training</td>
<td>3</td>
</tr>
<tr>
<td>KIN 8A</td>
<td>Beginning Exercise and Nutrition for Wellness and Weight Loss</td>
<td>2</td>
</tr>
<tr>
<td>KIN 10A</td>
<td>Athletic Training: Injury Prevention, Evaluation and Care</td>
<td>3</td>
</tr>
<tr>
<td>KIN 10B</td>
<td>Athletic Training: Treatment and Rehabilitation of Athletic Injuries</td>
<td>3</td>
</tr>
<tr>
<td>KIN 13</td>
<td>First Aid: Responding to Emergencies</td>
<td>3</td>
</tr>
<tr>
<td>KIN 15</td>
<td>Community Cardio Pulmonary Resuscitation.</td>
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</tr>
</tbody>
</table>

### Recommended from Related Disciplines (9 Units)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 30A</td>
<td>Inorganic Chemistry for Health Occupations</td>
<td>4</td>
</tr>
<tr>
<td>MATH 12</td>
<td>Elementary Statistics</td>
<td>5</td>
</tr>
<tr>
<td>or MATH 12H</td>
<td>Honors Elementary Statistics</td>
<td>5</td>
</tr>
<tr>
<td>NUTR 20</td>
<td>Nutrition</td>
<td>4</td>
</tr>
<tr>
<td>PSYCH 1</td>
<td>General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>or PSYCH 1H</td>
<td>Honors General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PHYS</td>
<td>Any Course</td>
<td>3 - 5</td>
</tr>
</tbody>
</table>

Total Units: 60

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## Personal Trainer Certification Skills Certificate

### Learning Outcome

1. Design fitness programs to meet desired training goals appropriate to individual clients.

### Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 13A</td>
<td>Biology of People-Anatomy and Physiology</td>
<td>3</td>
</tr>
<tr>
<td>HS 21</td>
<td>Health and Physical Fitness</td>
<td>3</td>
</tr>
<tr>
<td>KIN 4</td>
<td>Introduction to Personal Training</td>
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<td>KIN 13</td>
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<td>3</td>
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</tbody>
</table>

3 units from the following courses:

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<thead>
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</tr>
</thead>
<tbody>
<tr>
<td>KIN 27A</td>
<td>Beginning Weight Training</td>
<td>3</td>
</tr>
<tr>
<td>KIN 31A</td>
<td>Beginning Total Fitness</td>
<td>0.5 - 2</td>
</tr>
<tr>
<td>KIN 34A</td>
<td>Bootcamp Fitness I</td>
<td>0.5 - 2</td>
</tr>
<tr>
<td>KIN 35A</td>
<td>Beginning Cross Training</td>
<td>0.5 - 2</td>
</tr>
<tr>
<td>KIN 37A</td>
<td>Beginning Hatha Yoga</td>
<td>0.5 - 2</td>
</tr>
<tr>
<td>KIN 61A</td>
<td>Beginning Swim Fitness</td>
<td>0.5 - 3</td>
</tr>
<tr>
<td>KIN 62A</td>
<td>Beginning Water Aerobics</td>
<td>0.5 - 2</td>
</tr>
</tbody>
</table>

Total Units: 17

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## Kinesiology Courses

### KIN 2 Introduction to Kinesiology

3 units; 3 hours Lecture

Repeatability: May be taken a total of 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. May be offered in a Distance-Learning format.

*Transfer Credit:* Transfers to CSU; UC. C-ID: KIN 100

### KIN 3 Introduction to College and Intercollegiate Athletics

1-3 units; 1-3 hours Lecture

Repeatability: May be taken a total of 1 time.

Introduces college requirements, college services, CCCAA 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

Repeatability: May be taken a total of 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.

*Transfer Credit:* Transfers to CSU.

### KIN 4LA Beginning-Level Personal Training Lab

1 unit; 2 hours Laboratory

Hybrid Requisite: KIN 4.

Repeatability: May be taken a total of 1 time.

Provides the opportunity to apply the skills and knowledge acquired in KIN 4, and provides beginning-level practical exposure to the field of personal training.

*Transfer Credit:* Transfers to CSU.

### KIN 4LB Intermediate-Level Personal Training Lab

1 unit; 2 hours Laboratory

Prerequisite: KIN 4LA.

Repeatability: May be taken a total of 1 time.

Provides the opportunity to apply the skills and knowledge acquired in KIN including intermediate-level practical exposure to the field of personal training.

*Transfer Credit:* Transfers to CSU.

### KIN 4LC Advanced-Level Personal Training Lab

1 unit; 2 hours Laboratory

Prerequisite: KIN 4LB.

Repeatability: May be taken a total of 1 time.

Provides the opportunity to apply the skills and knowledge acquired in KIN including demonstrating the ability to individualize exercise instruction.

*Transfer Credit:* Transfers to CSU.
KIN 4LD  Expert-Level Personal Training Lab
1 unit; 2 hours Laboratory
Prerequisite: KIN 4LC.
Repeatability: May be taken a total of 1 time.
Provides the opportunity to apply the skills and knowledge acquired in KIN 4 including the proper communication of fitness instructions.
Transfer Credit: Transfers to CSU.

KIN 5  Theories and Techniques of Coaching
3 units; 3 hours Lecture
Repeatability: May be taken a total of 1 time.
Instruction in the theories and techniques of coaching and its variables which contribute to team performance and success. Addresses developing a coaching philosophy, sport psychology, sport pedagogy, sport physiology, and sport management. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

KIN 6A  Coaching Youth Soccer
3 units; 3 hours Lecture
Repeatability: May be taken a total of 1 time.
Examines the philosophy of coaching youth soccer and prepares the student for successful completion of the United States Soccer Federation (USSF) Coaching Licenses F and E as well as the Cal-North Goalkeeper Certificate.
Transfer Credit: Transfers to CSU.

KIN 8A  Beginning Exercise and Nutrition for Wellness and Weight Loss
2 units; 1 hour Lecture, 2 hours Laboratory
Repeatability: May be taken a total of 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 9  Coaching Youth Baseball
3 units; 3 hours Lecture
Repeatability: May be taken a total of 1 time.
Focuses on the philosophy of coaching youth baseball and includes coursework completion of the American Sport Education Baseball Coaching Certification. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

KIN 10A  Athletic Training: Injury Prevention, Evaluation and Care
3 units; 3 hours Lecture
Recommended Preparation: BIO 4.
Repeatability: May be taken a total of 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 – 4 hours Laboratory
Hybrid Requisite: Completion of or concurrent enrollment in KIN 10A.
Recommended Preparation: BIO 4.
Repeatability: May be taken a total of 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.
Repeatability: May be taken a total of 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 – 4 hours Laboratory
Prerequisite: KIN 10AL.
Co-requisite: KIN 10B.
Recommended Preparation: BIO 4.
Repeatability: May be taken a total of 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 – 4 hours Laboratory
Prerequisite: KIN 10BL or equivalent skills.
Recommended Preparation: BIO 4.
Repeatability: May be taken a total of 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 – 6 hours Laboratory
Prerequisite: KIN 10CL or equivalent skills.
Repeatability: May be taken a total of 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
Repeatability: May be taken a total of 1 time.
Details the theory and demonstration of first aid care of the injured with certification by the American Heart Association. 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
Repeatability: May be taken a total of 1 time.
Provides certification in American Heart Association 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 16  Advanced CPR: Healthcare Provider A.H.A. Basic Life Support
0.5 unit; 0.5 hour Lecture
Repeatability: May be taken a total of 1 time.
Trains participants to promptly recognize life-threatening emergencies and provide Basic Life Support maneuvers such as giving high-quality chest compressions, deliver appropriate ventilations, and provide early use of an Automated External Defibrillator. Provides American Heart Association certification.
Transfer Credit: Transfers to CSU; UC.

KIN 20L  Aerobic Fitness
0.5 – 3 units; 1.5 – 9 hours Laboratory
Repeatability: May be taken a total of 1 time.
Provides supervision in developing and maintaining a personal aerobic fitness program in the Wellness Education Center.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity courses combined: maximum credit - 4 units.

KIN 22L  Strength Training
0.5 – 3 units; 1.5 – 9 hours Laboratory
Repeatability: May be taken a total of 1 time.
Provides supervision in developing and maintaining a personal strength training program in the Wellness Education Center.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity courses combined: maximum credit - 4 units.

KIN 23A  Fitness and Conditioning I
0.5 – 1 units; 1.5 – 3 hours Laboratory
Repeatability: May be taken a total of 1 time.
Provides supervision in developing and maintaining a fitness and conditioning program in the Wellness Education Center.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity courses combined: maximum credit - 4 units.
KIN 23B  
Fitness and Conditioning II  
0.5 – 1 units; 1.5 – 3 hours Laboratory  
Prerequisite: KIN 23A.  
Repeatability: May be taken a total of 1 time.  
Provides the opportunity to continue to develop an individualized fitness and conditioning program to meet desired training goals in the Wellness Education Center.  
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity courses combined: maximum credit - 4 units

KIN 23C  
Fitness and Conditioning III  
0.5 – 1 units; 1.5 – 3 hours Laboratory  
Prerequisite: KIN 23B.  
Repeatability: May be taken a total of 1 time.  
Provides continued supervision in applying the skills and knowledge-acquired in KIN 23A and 23B to develop an individualized fitness program.  
Transfer Credit: Transfers to CSU; UC.

KIN 23D  
Fitness and Conditioning IV  
0.5 – 1 units; 1.5 – 3 hours Laboratory  
Prerequisite: KIN 23C.  
Repeatability: May be taken a total of 1 time.  
Provides continued supervision in applying appropriate variations and progressions to an individualized fitness program.  
Transfer Credit: Transfers to CSU; UC.

KIN 24L  
Lifetime Fitness  
0.5 – 3 units; 1.5 – 9 hours Laboratory  
Repeatability: May be taken a total of 1 time.  
Provides supervision in developing and maintaining an individualized fitness program in the Wellness Education Center.  
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity courses combined: maximum credit - 4 units

KIN 27A  
Beginning Weight Training  
0.5 – 2 units; 1 – 4 hours Laboratory  
Repeatability: May be taken a total of 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 27AL  
Weight Training Lab A  
0.5 – 2 units; 1 – 4 hours Laboratory  
Co-requisite: KIN 27A.  
Repeatability: May be taken a total of 1 time.  
Provides supervision in developing and maintaining a personal strength training program for the beginning student.  
Transfer Credit: Transfers to CSU.

KIN 27B  
Intermediate Weight Training  
0.5 – 2 units; 1 – 4 hours Laboratory  
Prerequisite: KIN 27A.  
Repeatability: May be taken a total of 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.  
KIN 27BL  
Weight Training Lab B  
0.5 – 2 units; 1 – 4 hours Laboratory  
Prerequisite: KIN 27AL.  
Co-requisite: KIN 27B.  
Repeatability: May be taken a total of 1 time.  
Provides supervision in developing and maintaining a personal strength training program for the intermediate student.  
Transfer Credit: Transfers to CSU.

KIN 31A  
Beginning Total Fitness  
0.5 – 2 units; 1 – 4 hours Laboratory  
Repeatability: May be taken a total of 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 31AL  
Total Fitness Lab A  
0.5 – 2 units; 1 – 4 hours Laboratory  
Co-requisite: KIN 31A.  
Repeatability: May be taken a total of 1 time.  
Provides supervision in developing and maintaining a total fitness program for the beginning student.  
Transfer Credit: Transfers to CSU.
**KIN 31B | Intermediate Total Fitness**  
0.5 – 2 units; 1 – 4 hours Laboratory  
Prerequisite: KIN 31A.  
Repeatability: May be taken a total of 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 31BL | Total Fitness Lab B**  
0.5 – 2 units; 1 – 4 hours Laboratory  
Co-requisite: KIN 31B.  
Repeatability: May be taken a total of 1 time.  
Provides supervision in developing and maintaining a total fitness program for the intermediate student.  
*Transfer Credit:* Transfers to CSU.

**KIN 34A | Bootcamp Fitness I**  
0.5 – 2 units; 1 – 4 hours Laboratory  
Repeatability: May be taken a total of 1 time.  
Provides instruction in an approach to fitness using functional and core training for the beginning student.  
*Transfer Credit:* Transfers to CSU; UC, with limits: Any or all KIN Activity courses combined: maximum credit - 4 units.

**KIN 34B | Bootcamp Fitness II**  
0.5 – 2 units; 1 – 4 hours Laboratory  
Prerequisite: KIN 34A.  
Repeatability: May be taken a total of 1 time.  
Provides instruction in an approach to fitness using functional and core training for the intermediate student.  
*Transfer Credit:* Transfers to CSU; UC, with limits: Any or all KIN Activity courses combined: maximum credit - 4 units.

**KIN 35A | Beginning Cross Training**  
0.5 – 2 units; 1 – 4 hours Laboratory  
Repeatability: May be taken a total of 1 time.  
Provides instruction on fitness using constantly varied functional movements with body weight and light weight equipment to challenge beginning students in a supportive environment.  
*Transfer Credit:* Transfers to CSU; UC, with limits: Any or all KIN Activity courses combined: maximum credit - 4 units.

**KIN 35B | Intermediate Cross Training**  
0.5 – 2 units; 1 – 4 hours Laboratory  
Prerequisite: KIN 35A.  
Repeatability: May be taken a total of 1 time.  
Provides instruction on fitness using constantly varied functional movements with body weight and light weight equipment to challenge intermediate students in a supportive environment.  
*Transfer Credit:* Transfers to CSU; UC, with limits: Any or all KIN Activity courses combined: maximum credit - 4 units.

**KIN 37A | Beginning Hatha Yoga**  
0.5 – 2 units; 1 – 4 hours Laboratory  
Repeatability: May be taken a total of 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 – 4 hours Laboratory  
Prerequisite: KIN 37A.  
Repeatability: May be taken a total of 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 – 4 hours Laboratory  
Repeatability: May be taken a total of 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 – 4 hours Laboratory
Prerequisite: KIN 38A.
Repeatability: May be taken a total of 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 – 4 hours Laboratory
Repeatability: May be taken a total of 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 – 4 hours Laboratory
Prerequisite: KIN 39A.
Repeatability: May be taken a total of 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 – 4 hours Laboratory
Repeatability: May be taken a total of 1 time.
Provides 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 – 4 hours Laboratory
Prerequisite: KIN 40A.
Repeatability: May be taken a total of 1 time.
Provides 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 – 4 hours Laboratory
Prerequisite: KIN 40B.
Repeatability: May be taken a total of 1 time.
Provides 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 – 4 hours Laboratory
Repeatability: May be taken a total of 1 time.
Develops 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 – 4 hours Laboratory
Prerequisite: KIN 41A
Repeatability: May be taken a total of 1 time.
Develops 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 42A  Beginning Pickleball
0.5 – 2 units; 1 – 4 hours Laboratory
Repeatability: May be taken a total of 1 time.
Instructs the beginning skills, techniques, and strategies along with rules and etiquette of Pickleball, which is a court game that combines skills from tennis, table tennis, and badminton.
Transfer Credit: Transfers to CSU; UC.

KIN 42B  Intermediate Pickleball
0.5 – 2 units; 1 – 4 hours Laboratory
Prerequisite: KIN 42A.
Repeatability: May be taken a total of 1 time.
Instructs the intermediate skills, techniques, and strategies along with rules and etiquette of Pickleball, which is a court game that combines skills from tennis, table tennis, and badminton.
Transfer Credit: Transfers to CSU; UC.
KIN 42C  Advanced Pickleball
0.5 – 2 units; 1 – 4 hours Laboratory
Prerequisite: KIN 42B.
Repeatability: May be taken a total of 1 time.
Instructs the advanced skills, techniques, and strategies along with rules and etiquette of Pickleball, which is a court game that combines skills from tennis, table tennis, and badminton.
Transfer Credit: Transfers to CSU; UC.

KIN 43A  Beginning Tennis
0.5 – 2 units; 1 – 4 hours Laboratory
Repeatability: May be taken a total of 1 time.
Provides 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 – 4 hours Laboratory
Recommended Preparation: KIN 43A.
Repeatability: May be taken a total of 1 time.
Provides 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 – 4 hours Laboratory
Recommended Preparation: KIN 43B.
Repeatability: May be taken a total of 1 time.
Provides 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 44A  Beginning Hiking
0.5 – 3 units; 1 – 6 hours Laboratory
Repeatability: May be taken a total of 1 time.
Introduces concepts of safe hiking using the Santa Cruz County parks, trails, and surrounding areas and includes local history, flora and fauna, emergency procedures, safety rules, health issues, and environmental considerations. Hikes will be fun and challenging, averaging 5-8 miles on moderate to steep terrain, and require a 20-minute per mile pace.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN Activity courses combined: maximum credit - 4 units.

KIN 44B  Intermediate Hiking
0.5 – 3 units; 1 – 6 hours Laboratory
Prerequisite: KIN 44A.
Repeatability: May be taken a total of 1 time.
Examines the concepts of safe hiking using the Santa Cruz County parks, trails, and surrounding areas and includes local history, flora and fauna, emergency procedures, safety rules, health issues, and environmental considerations. Hikes will be fun and challenging, averaging 5-8 miles on moderate to steep terrain, and require a 20-minute per mile pace.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN Activity courses combined: maximum credit - 4 units.

KIN 44C  Advanced Hiking
0.5 – 3 units; 1 – 6 hours Laboratory
Prerequisite: KIN 44B.
Repeatability: May be taken a total of 1 time.
Continues to examine the concepts of safe hiking using the Santa Cruz County parks, trails, and surrounding areas and includes local history, flora and fauna, emergency procedures, safety rules, health issues, and environmental considerations for the advanced student. Hikes will be fun and challenging, averaging 5-8 miles on moderate to steep terrain, and require a 20-minute per mile pace.
Transfer Credit: Transfers to CSU; 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 – 1 hours Lecture, 1 – 3 hours Laboratory
Repeatability: May be taken a total of 1 time.
Provides basic self-defense skills and psychological techniques for confronting threatening situations. Includes information about the nature and incidence of assaults.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity courses combined: maximum credit - 4 units. May be used for Cabrillo and CSU GE Area E if taken Fall, 2013 or later.

KIN 47A  Beginning Basketball
0.5 – 2 units; 1 – 4 hours Laboratory
Repeatability: May be taken a total of 1 time.
Provides 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 – 4 hours Laboratory
Prerequisite: KIN 47A.
Repeatability: May be taken a total of 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 – 4 hours Laboratory
Prerequisite: KIN 47B.
Repeatability: May be taken a total of 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 48A  Beginning Flag Football
0.5 – 2 units; 1 – 4 hours Laboratory
Repeatability: May be taken a total of 1 time.
Provides instruction and practice of the fundamentals of flag football including strategies and rules of the game.
Transfer Credit: Transfers to CSU; UC.

KIN 48B  Intermediate Flag Football
0.5 – 2 units; 1 – 4 hours Laboratory
Prerequisite: KIN 48A.
Repeatability: May be taken a total of 1 time.
Provides instruction and practice of intermediate skills of flag football including catching, running with the ball, strategies, blocking, and rules of the game. Drills and competitions are used.
Transfer Credit: Transfers to CSU; UC.

KIN 48C  Advanced Flag Football
0.5 – 2 units; 1 – 4 hours Laboratory
Prerequisite: KIN 48B.
Repeatability: May be taken a total of 1 time.
Provides instruction and practice of advanced skills of flag football including rules, strategies, blocking, and individual analysis in performance of individual and team concepts.
Transfer Credit: Transfers to CSU; UC.

KIN 50A  Beginning Soccer
0.5 – 2 units; 1 – 4 hours Laboratory
Repeatability: May be taken a total of 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 – 4 hours Laboratory
Prerequisite: KIN 50A.
Repeatability: May be taken a total of 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 – 4 hours Laboratory
Prerequisite: KIN 50B.
Repeatability: May be taken a total of 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 – 4 hours Laboratory
Repeatability: May be taken a total of 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 – 4 hours Laboratory
Prerequisite: KIN 51A.
Repeatability: May be taken a total of 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 – 4 hours Laboratory
Prerequisite: KIN 51B.
Repeatability: May be taken a total of 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 52A  Beginning Ultimate Frisbee
0.5 – 2 units; 1 – 4 hours Laboratory
Repeatability: May be taken a total of 1 time.
Provides instruction on the skills and strategies of Ultimate Frisbee for the beginning student.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN Activity courses combined: maximum credit - 4 units.

KIN 52B  Intermediate Ultimate Frisbee
0.5 – 2 units; 1 – 4 hours Laboratory
Prerequisite: KIN 52A.
Repeatability: May be taken a total of 1 time.
Provides instruction on the skills and strategies of Ultimate Frisbee for the intermediate student.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN Activity courses combined: maximum credit - 4 units.

KIN 52C  Advanced Ultimate Frisbee
0.5 – 2 units; 1 – 4 hours Laboratory
Repeatability: May be taken a total of 1 time.
Recommended Preparation: KIN 52B.
Provides instruction on the skills and strategies of Ultimate Frisbee for the advanced 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 – 4 hours Laboratory
Repeatability: May be taken a total of 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 – 4 hours Laboratory
Prerequisite: KIN 53B.
Repeatability: May be taken a total of 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 – 4 hours Laboratory
Repeatability: May be taken a total of 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 – 4 hours Laboratory
Repeatability: May be taken a total of 1 time.
Recommended Preparation: KIN 54A.
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 – 4 hours Laboratory
Recommended Preparation: KIN 54B.
Repeatability: May be taken a total of 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 – 6 hours Laboratory
Repeatability: May be taken a total of 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 – 4 hours Laboratory
Repeatability: May be taken a total of 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 – 4 hours Laboratory
Prerequisite: KIN 56A.
Repeatability: May be taken a total of 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 – 4 hours Laboratory
Prerequisite: KIN 56B.
Repeatability: May be taken a total of 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
KIN 60A Beginning Swimming
0.5 – 2 units; 1 – 4 hours Laboratory
Repeatability: May be taken a total of 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 – 4 hours Laboratory
Prerequisite: KIN 60A.
Repeatability: May be taken a total of 1 time.
Emphasizes development of aquatic skills for the intermediate swim­
mer 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 – 4 hours Laboratory
Prerequisite: KIN 60B.
Repeatability: May be taken a total of 1 time.
Emphasizes development of aquatic skills and conditioning appro­
piate to the advanced swimmer. Includes competitive strokes, tech­
niques, and conditioning activities.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity
courses combined: maximum credit - 4 units.

KIN 61A  Beginning Swim Fitness
0.5 – 2 units; 1 – 4 hours Laboratory
Repeatability: May be taken a total of 1 time.
Introduces physical fitness using competitive swim strokes.
Stroke technique, competitive methods, aerobic and anaerobic swim
sets are included.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity
courses combined: maximum credit - 4 units.

KIN 61B  Intermediate Swim Fitness
0.5 – 2 units; 1 – 4 hours Laboratory
Prerequisite: KIN 61A.
Repeatability: May be taken a total of 1 time.
Provides instruction of intermediate level swimming techniques to
improve physical fitness. Swim sets include interval training, work out
structure to meet goals, and learning the differences between aerobic
and anaerobic swimming.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity
courses combined: maximum credit - 4 units.

KIN 61C  Advanced Swim Fitness
0.5 – 2 units; 1 – 4 hours Laboratory
Prerequisite: KIN 61B.
Repeatability: May be taken a total of 1 time.
Provides instruction of advanced level competitive swimming tech­
niques to enhance physical fitness. Swim sets include flip turns, tactical
breathing, and developing a complete swim work out.
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 – 4 hours Laboratory
Repeatability: May be taken a total of 1 time.
Provides cardiovascular conditioning, muscle strengthening, and flex­
ibility 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 – 4 hours Laboratory
Prerequisite: KIN 62A.
Repeatability: May be taken a total of 1 time.
Provides cardiovascular conditioning, muscle strengthening, and flex­
ibility 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.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>KIN 63A</td>
<td>Beginning Water Polo</td>
<td>0.5 – 2 units; 1 – 4 hours Laboratory</td>
<td>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.</td>
</tr>
<tr>
<td>KIN 63B</td>
<td>Intermediate Water Polo</td>
<td>0.5 – 2 units; 1 – 4 hours Laboratory</td>
<td>Prerequisite: KIN 63A. Provides instruction on skills and team 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.</td>
</tr>
<tr>
<td>KIN 63C</td>
<td>Advanced Water Polo</td>
<td>0.5 – 2 units; 1 – 4 hours Laboratory</td>
<td>Prerequisite: KIN 63B. Provides instruction in the skills and strategies of water polo for the advanced student. Transfer Credit: Transfers to CSU; UC.</td>
</tr>
<tr>
<td>KIN 64</td>
<td>Lifeguard Training</td>
<td>2 units; 1 hour Lecture, 2 hours Laboratory</td>
<td>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. 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.</td>
</tr>
<tr>
<td>KIN 65A</td>
<td>Masters Swimming</td>
<td>0.5 – 2 units; 1 – 4 hours Laboratory</td>
<td>Recommended Preparation: Introduction or exposure to all four competitive swim strokes as well as being water safe. Provides instruction in propulsive techniques of the butterfly, backstroke, breaststroke, and freestyle swim strokes used in competitive swimming. Transfer Credit: Transfers to CSU; UC.</td>
</tr>
</tbody>
</table>

### LATIN AMERICAN STUDIES

Human Arts and Social Sciences Division

Paul Harvell, Division Dean
Division Office, Room 420
M. Teresa Macedo, Department Chair, (831) 477-3254
Aptos Counseling: (831) 479-6274 for appointment
Watsonville Counseling: (831) 786-4734
Call (831) 479-6297 for more information
http://www.cabrillo.edu/programs

Latin American and Latino/a Studies Skills Certificate

**Learning Outcome**

1. Analyze the histories, politics, and cultures of societies in Latin America and the Caribbean and Chicano/Latino communities in the U.S. using an interdisciplinary approach.

**Core Course (3 Units)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC 8</td>
<td>Introduction to Latino/a Studies</td>
<td>3</td>
</tr>
</tbody>
</table>

**Select 6 units from the following courses (6 Units)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 16C</td>
<td>History of Mexico</td>
<td>3</td>
</tr>
<tr>
<td>HIST 21A</td>
<td>Chicano History to 1865</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>HIST 21AH</td>
<td>Honors Chicano History to 1865</td>
</tr>
<tr>
<td>HIST 21B</td>
<td>Chicano History since 1865</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>HIST 21BH</td>
<td>Honors Chicano History since 1865</td>
</tr>
</tbody>
</table>

**Select 3 units from the following courses: (3 Units)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course 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>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>PHILO 17</td>
<td>Latin American Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>SOC 3</td>
<td>Race, Ethnicity and Society</td>
<td>3</td>
</tr>
<tr>
<td>SOC 9</td>
<td>Globalization and Society</td>
<td>3</td>
</tr>
<tr>
<td>WS 5</td>
<td>La Mujer: Latina Life and Experience</td>
<td>3</td>
</tr>
</tbody>
</table>

**Select 3 units from the following courses: (3 Units)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AH 19</td>
<td>Art of the Americas</td>
<td>3</td>
</tr>
<tr>
<td>AH 52</td>
<td>Latin American Art</td>
<td>3</td>
</tr>
<tr>
<td>DANCE 15A</td>
<td>Salsa Dance I</td>
<td>0.5 - 3</td>
</tr>
<tr>
<td>DANCE 15B</td>
<td>Salsa Dance II</td>
<td>0.5 - 3</td>
</tr>
<tr>
<td>DANCE 16A</td>
<td>Baile Folklórico: Regional Danzas de Mexico I</td>
<td>0.5 - 3</td>
</tr>
<tr>
<td>DANCE 16B</td>
<td>Baile Folklórico: Regional Danzas de Mexico II</td>
<td>0.5 - 3</td>
</tr>
<tr>
<td>ENGL 39</td>
<td>Chicana/o-Latina/o Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 40</td>
<td>Latin American Literature</td>
<td>3</td>
</tr>
<tr>
<td>MUS 11LA</td>
<td>Latin American Music Appreciation</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 6A</td>
<td>Spanish Through Film - Latin America</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 26</td>
<td>Spanish Through Literature - Latin America</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 30B</td>
<td>Mexican Civilization and Culture</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Units**

15
LEARNING SKILLS
Beth McKinnon, Director, Accessibility Support Center
Program Office, Room LRC1073
Aptos Counseling: (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
Co-requisite: Concurrent enrollment in a math class is recommended.
Repeatability: May be taken a total of 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. May be taken Pass/No Pass only.
*Transfer Credit:* Non-transferable.

**LS 200L**  Reduce Test Anxiety Lab
1 unit; 2 hours Laboratory
Repeatability: May be taken a total of 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.
*Transfer Credit:* Non-transferable.

**LS 254**  Diagnostic Assessment
0.5 unit; 1 hour Laboratory
Repeatability: May be taken a total of 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.
*Transfer Credit:* Non-transferable.

**LS 264**  Study Skills
3 units; 3 hours Lecture
Repeatability: May be taken a total of 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 organization, test-taking, problem solving, stress reduction, goal setting, and memory strategies.
*Transfer Credit:* Non-transferable.

**LS 281**  Strategies for Students with Learning Disabilities & Attention Deficit Disorder
3 units; 3 hours Lecture
Repeatability: May be taken a total of 1 time.
Recommended for all students interested in learning disabilities and/or attention deficit disorder. Focus is on the importance of students understanding their individual strengths and weaknesses. Also emphasizes successful compensatory strategies, accommodations, communication with others about learning disabilities and attention deficit disorder, stress, organization, and time management skills.
*Transfer Credit:* Non-transferable.

LIBERAL STUDIES
see EDUCATION page 183
LIBERAL ARTS AND SCIENCES

Liberal Arts and Sciences Degrees

The Associate degrees in Liberal Arts and Sciences represent the completion of a broad area of study with an emphasis in Interdisciplinary Studies. Students complete the appropriate general education program (Cabrillo general education, CSU General Education/Breadth, IGETC) and requirements for the emphasis. This degree is designed primarily 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 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.

Learning Outcomes:

Students will be able to:

a) Demonstrate awareness of the scope and variety of works in the arts and humanities
b) Examine institutions and processes across a range of historical periods and social settings
c) Identify premises, conclusions, claims, assumptions, biases in one's own argument as well as in the arguments of others.

Select 18 units from the following courses with at least one course from Group A, one course from Group B, and one course from Group C:

Group A:
American Sign Language 1, 2, 3
Art History 10, 11, 11H, 12, 13, 13H, 14, 16#, 17#, 18#, 19#, 20A, 20B, 52#, 53
Art Photography 15#, 35#, 35H#, 45 (Beg. Fall ’16), 55#
Dance 1#
English 1B, 1BH, 1BMC#, 1BMC#, 2, 12A, 12B, 12C, 12E, 17, 24A#, 24B#, 27A#, 27B#, 30A, 30B, 34, 39#, 40#, 41A#, 45#, 46A, 46B, 48A, 49A, 49B
French 1, 2, 3, 10
German 1, 2
History 2A#, 2B#, 4A, 4AH, 4B, 4BH, 6#, 9, 10, 11, 14#, 14H#, 15#, 16, 16#, 16B#, 16C#, 17A#, 17A#, 17A#, 17B#, 17B#, 18A#, 18B#, 19B#, 19C#, 21A#, 21AH#, 21B#, 21BH#, 24, 27A#, 27B#, 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, 12
Women’s Studies 1, 2#, 11

Group B:
Anthropology 2#, 2H#, 3#, 6#, 7#, 8#, 17#, 19#,
Bilingual/Bicultural Studies 32#
Communication Studies 7, 12#
Early Childhood Education 31, 32
Economics 1A, 1B
English 27A#, 27B#
Geography 2#, 4#, 5
Health Science 15
History 2A#, 2B#, 4A, 4AH, 4B, 4BH, 6#, 9, 11, 14*, 14H*, 15#, 16A#, 16B#, 16C#, 17A#, 17A#, 17B#, 17B#, 19B#, 19C#, 21A#, 21AH#, 21B#, 21BH#, 24, 27A#, 27B#, 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, 12
Women’s Studies 1, 2#, 11

Group C:
Business 9
Comm 1, 1H, 2, 4, 10
English 1A, 1AH, 1AMC#, 1AMCH#, 2, 2H, 2MC#, 2MCH#
Philosophy 12, 49
Math 2, 3, 4, 5A, 5B, 5C, 6, 7, 10, 12, 12H, 13, 18
Psych 2A

Synopsis:

Associate in Arts Degree in Liberal Arts and Sciences
General Education (CSU or IGETC pattern) ................................................................. 27-39 units
Interdisciplinary Studies Courses ................................................................. 18 units
Electives (any course numbered 1-99) ................................................................. 3-15 units
Total Units required for A.A. Transfer ................................................................. 60 units

Associate in Arts Degree in Liberal Arts and Sciences
General Education (non-transfer pattern) ................................................................. 30 units
Interdisciplinary Studies Courses ................................................................. 18 units
Electives (any course numbered 1-199) ................................................................. 12 units
Total Units required for A.A. Non Transfer ................................................................. 60 units

Associate in Science Degree in Liberal Arts and Sciences
General Education (non-transfer pattern) ................................................................. 21 units
Interdisciplinary Studies Courses ................................................................. 18 units
Electives (any course numbered 1-199) ................................................................. 21 units
Total Units required for A.S. Non Transfer ................................................................. 60 units
Digital Literacy Certificate of Competency

The certificate of competency in digital literacy is designed to accompany courses that prepare students for the workforce. The noncredit courses needed for completion introduce students to basic computer skills, library research, and web-based resources.

Learning Outcomes
Demonstrate and apply basic computer technology skills necessary for the completion of college course work, including basic file management, e-mail, document creation, use of library tools, use of Microsoft Word for document creation, and Internet research. Apply basic technology skills to identify, locate, retrieve, evaluate, and use a variety of reliable information sources, both print and electronic, for specific college courses or course-related work. Understand and employ conventions of acknowledging the work of others.

Required Courses
LIBR 400 or CABB 400
LIBR 401 or CABB 401

Library Courses
LIBR 10 Information Research
1 unit; 3 hours Laboratory
Repeatability: May be taken a total of 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 or ESL 100 and READ 100.
Repeatability: May be taken a total of 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.

LIBR 400 Digital Literacy I
0 units; 9 hours Laboratory
Repeatability: May be repeated.
Provides an introduction to basic computer skills, library research, and web-based campus resources, contextualized for specific courses. Overview of computer lab, local library, e-mail, document creation, file management, books, library databases, website evaluation, and citation as they relate to course assignments.

LIBR 401 Digital Literacy II
0 units; 9 hours Laboratory
Repeatability: May be repeated.
Continues the introduction to basic computer skills, library research, and web-based campus resources, contextualized for specific courses. Provides an introduction to campus computer labs and library, learning management systems, e-mail, document creation, file management, books and e-books, library databases, source evaluation, and citation as they relate to assignments for Cabrillo College courses.
Mathematics A.S.-T Transfer Degree

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 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, or a “P” if the course is taken on a “Pass/No Pass” basis. Note: this degree requires greater than 18 units in the major for completion.
- Certified completion of the California State University General Education- Breadth pattern (CSU GE Breadth) or the Intersegmental General Education Transfer Curriculum (IGETC) pattern.

Learning Outcomes

The Cabrillo College Core Competencies (with an emphasis in the study of Mathematics):

1. Communication: Reading, Writing, Listening, Speaking, and/or Conversing

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


CSU or IGETC for CSU General Education Requirements 37-39 Units

Core

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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<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>
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<tr>
<td>MATH 5C</td>
<td>Analytic Geometry and Calculus III</td>
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Group A (1 course)

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<thead>
<tr>
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<th>Units</th>
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</thead>
<tbody>
<tr>
<td>MATH 6</td>
<td>Introduction to Linear Algebra</td>
<td>3</td>
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<td>or</td>
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<tr>
<td>MATH 7</td>
<td>Introduction to Differential Equations</td>
<td>3</td>
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Group B (1 course)

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<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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<td>or</td>
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<tr>
<td>MATH 12H</td>
<td>Honors Elementary Statistics</td>
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</tr>
<tr>
<td>MATH 23</td>
<td>*Discrete Mathematics</td>
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<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>
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<td>CS 12J</td>
<td>Introduction to Programming Concepts and Methodology, Java</td>
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<td>CS 19</td>
<td>C++ Programming</td>
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<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>

Note: All major courses (except Computer Science courses) are also general education courses.

Total Units: 60
*Spring only

Mathematics A.S. Degree

Learning Outcomes

The Cabrillo College Core Competencies (with an emphasis in the study of Mathematics):

1. Communication: Reading, Writing, Listening, Speaking, and/or Conversing

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


Model Program for Mathematics

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. This degree may be completed as a transferable Associate in Science degree with the addition of university admission requirements and increased general education requirements.

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 (18 units)

- 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 7 Introduction to Differential Equations ......................... 3

Approved Electives (21 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.

Note: No other math class counts toward an associate degree in mathematics.

Basic Mathematics I Certificate of Completion

The certificate of completion in basic mathematics skills is designed to prepare students for higher level math skills. The noncredit courses needed for completion cover arithmetic procedures involving whole numbers and decimals, fractions, ratios, proportions, and percents.

Learning Outcomes

- Demonstrate arithmetic literacy with whole numbers and decimals.
- Demonstrate arithmetic literacy with fractions.
- Demonstrate arithmetic literacy with ratios, proportions, and percents.

Required Courses

- MATH 350A Whole Numbers and Decimals
- MATH 350B Fractions
- MATH 350C Ratios, Proportions and Percents

Basic Mathematics II Certificate of Completion

The certificate of completion in basic mathematics skills is designed to prepare students for higher level math skills. The noncredit courses needed for completion cover arithmetic procedures involving geometry, graphs, measurements, statistics, signed numbers, algebraic expressions and simple linear equations.

Learning Outcomes

- Determine and apply appropriate formulas to problems involving geometry and basic statistics and demonstrate mathematical literacy with graphs and with measurements in the U.S. system and metric system. Demonstrate arithmetic literacy with signed numbers. Demonstrate algebraic literacy with expressions and linear equations.

Required Courses

- MATH 350D Geometry, Graphs, Measurements and Statistics
- MATH 350E Signed Numbers
- MATH 350F Linear Equations

Math PLUS: Preparation for Pre-Algebra Level Math Certificate of Completion

The certificate of completion in basic mathematics skills is designed to strengthen pre-algebra level math skills. The noncredit courses needed for completion cover community building, learning skills material, and mathematic topics central to the level of math students are preparing for.

Learning Outcomes

- Evaluate mathematical progress and utilize problem-solving and planning skills to implement behaviors needed to facilitate academic success. Demonstrate mathematical literacy for pre-algebra topics, including whole numbers, fractions, decimals, percents, signed numbers, equations, statistics, proportions, and geometry.

Required Courses

- MATH 300 Math PLUS: Study Skills
- MATH 301 Math PLUS: Pre-Algebra Review
Math PLUS: Preparation for Elementary Algebra Level Math Certificate of Completion

The certificate of completion in basic mathematics skills is designed to strengthen elementary algebra level math skills. The noncredit courses needed for completion cover community building, learning skills material, and mathematic topics central to the level of math students are preparing for.

Learning Outcomes

Evaluate mathematical progress and utilize problem-solving and planning skills to implement behaviors needed to facilitate academic success. Demonstrate mathematical literacy for elementary algebra topics, including evaluating appropriate techniques to apply to various types of equations and inequalities, produce solution(s), and interpret solution(s).

Required Courses

MATH 300    Math PLUS: Study Skills
MATH 303    Math PLUS: Elementary Algebra Review

Math PLUS: Preparation for Intermediate Algebra Level Math Certificate of Completion

The certificate of completion in mathematics skills is designed to strengthen intermediate algebra level math skills. The noncredit courses needed for completion cover community building, learning skills material, and mathematic topics central to the level of math students are preparing for.

Learning Outcomes

Evaluate mathematical progress and utilize problem-solving and planning skills to implement behaviors needed to facilitate academic success. Demonstrate algebraic literacy for subsequent math courses for intermediate algebra topics, including evaluating appropriate techniques to apply to various types of equations and inequalities, produce solution(s), and interpret solution(s).

Required Courses

MATH 300    Math PLUS: Study Skills
MATH 304    Math PLUS: Intermediate Algebra Review

Math PLUS: Preparation for Statistics Level Math Certificate of Completion

The certificate of completion in basic mathematics skills is designed to strengthen statistics level math skills. The noncredit courses needed for completion cover community building, learning skills material, and mathematic topics central to the level of math students are preparing for.

Learning Outcomes

Evaluate mathematical progress and utilize problem-solving and planning skills to implement behaviors needed to facilitate academic success. Demonstrate arithmetic and basic algebraic literacy, such as working with whole numbers, fractions, and decimals, and using the order of operations and apply those skills to develop statistical thinking and conceptual understanding.

Required Courses

MATH 300    Math PLUS: Study Skills
MATH 302    Math PLUS: Essential Math Preparation for Statistics

Mathematics Courses

MATH 2 Precalculus Algebra
4 units; 4 hours Lecture
Prerequisite: MATH 152 or MATH 152B or equivalent skills. Note: MATH 142 does NOT satisfy the prerequisite.
Repeatability: May be taken a total of 1 time.
Transfer Credit: Transfers to CSU; UC, with limits: Math 2 and 4 combined: maximum credit- 5 semester units.

MATH 3 Precalculus Trigonometry
3 units; 3 hours Lecture
Prerequisite: MATH 152 or MATH 152B or equivalent skills. Note: MATH 142 does NOT satisfy the prerequisite.
Recommended Preparation: MATH 153 or high school geometry or equivalent skills.
Repeatability: May be taken a total of 1 time.
Covers topics in MATH 2 and MATH 3 and is designed for the motivated student able to fulfill the requirements of both courses in a single course. A study of functions and their properties including trigonometric, logarithmic, exponential, polynomial, rational functions and their graphs, inverses and applications. The relationship between the equation form of a function and its graph will be emphasized. May not be taken Pass/No Pass. May be offered in a Distance-Learning Format. Transfer Credit: Transfers to CSU; UC, with limits: Math 2 and 4 combined: maximum credit- 5 semester units.

MATH 4 Precalculus Algebra and Trigonometry
5 units; 5 hours Lecture
Prerequisite: MATH 152 or MATH 152B or equivalent skills. Note: MATH 142 does NOT satisfy the prerequisite.
Recommended Preparation: MATH 153 or high school geometry or equivalent skills.
Repeatability: May be taken a total of 1 time.
Covers topics in MATH 2 and MATH 3 and is designed for the motivated student able to fulfill the requirements of both courses in a single course. A study of functions and their properties including trigonometric, logarithmic, exponential, polynomial, rational functions and their graphs, inverses and applications. The relationship between the equation form of a function and its graph will be emphasized. May not be taken Pass/No Pass. May be offered in a Distance-Learning Format. Transfer Credit: Transfers to CSU; UC, with limits: Math 2 and 4 combined: maximum credit- 5 semester units.

MATH 5A Analytic Geometry and Calculus I
5 units; 5 hours Lecture
Prerequisite: MATH 4 or MATH 2 and MATH 3 or equivalent skills.
Repeatability: May be taken a total of 1 time.
Presents plane analytic geometry of lines and graphing, differential calculus of algebraic and transcendental functions of one variable with applications, and introductory integral calculus. Designed for majors in mathematics, engineering, and physical sciences. May not be taken Pass/No Pass. Transfer Credit: Transfers to CSU; UC, with limits: MATH 5A & 18 combined: maximum credit-1 course. C-ID: MATH 210
MATH 5B    Analytic Geometry and Calculus II
5 units; 5 hours Lecture
Prerequisite: MATH 5A or equivalent skills.
Repeatability: May be taken a total of 1 time.
Prerequisite: Presents integral calculus of algebraic and transcendental functions of one variable with applications, techniques of integration, sequences and series. 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 220

MATH 5C    Analytic Geometry and Calculus III
5 units; 5 hours Lecture
Prerequisite: MATH 5B or equivalent skills.
Repeatability: May be taken a total of 1 time.
Prerequisite: Presents vector valued functions, calculus of functions of more than one variable, partial derivatives, multiple integration, Green's Theorem, Stokes' Theorem, divergence theorem. 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.
Repeatability: May be taken a total of 1 time.
MATH 6 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 with an Honors Contract. 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.
Repeatability: May be taken a total of 1 time.
MATH 7 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 with an Honors Contract. 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 142 or MATH 142B or MATH 152 or MATH 152B or equivalent skills.
Repeatability: May be taken a total of 1 time.
Prerequisite: 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 112 or MATH 142 or MATH 142B or MATH 152 or MATH 152B or equivalent skills or placement by multiple measures.
Repeatability: May be taken a total of 1 time.
Prerequisite: Presents the use of probability techniques, hypothesis testing, and predictive techniques to facilitate decision-making. Topics include descriptive statistics; probability and sampling distributions; statistical inference; correlation and linear regression; analysis of variance (ANOVA); chi-square and t-tests; and application of technology for statistical analysis including the interpretation of the relevance of statistical findings. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC, with limits: MATH 12/12H, BUS 9 and PSYCH 2A combined: maximum credit-1 course. C-ID: MATH 110

MATH 12H    Honors Elementary Statistics
5 units; 5 hours Lecture
Prerequisite: Honors Standing. MATH 112 or MATH 142 or MATH 142B or MATH 152 or MATH 152B or equivalent skills or placement by multiple measures.
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken a total of 1 time.
Prerequisite: Presents the use of probability techniques, hypothesis testing, and predictive techniques to facilitate decision-making. Topics include descriptive statistics; probability and sampling distributions; statistical inference; correlation and linear regression; analysis of variance (ANOVA); chi-square and t-tests; and application of technology for statistical analysis including the interpretation of the relevance of statistical findings. May not be taken Pass/No Pass.
Transfer Credit: Transfers to CSU; UC, with limits: MATH 12/12H, BUS 9 and PSYCH 2A combined: maximum credit-1 course. C-ID: MATH 110

MATH 13    Finite Mathematics
3 units; 3 hours Lecture
Prerequisite: MATH 152 or MATH 152B or equivalent skills. NOTE: Math 142 does NOT satisfy the prerequisite.
Repeatability: May be taken a total of 1 time.
Prerequisite: Presents linear functions, systems of linear equations and inequalities, matrices, linear programming, mathematics of finance, sets and Venn diagrams, combinatorial techniques, and an introduction to probability. Includes applications in business, economics, and social sciences. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC. C-ID: MATH 130
MATH 15  Number Systems
3 units; 3 hours Lecture, 1 hour Laboratory
Prerequisite: MATH 142 or MATH 152 or equivalent skills and MATH 153 or equivalent skills.
Repeatability: May be taken a total of 1 time.
Develops quantitative reasoning skills for elementary school teachers through in-depth, integrated explorations of topics in mathematics, including real number systems and subsystems. Emphasis is on comprehension and analysis of mathematical concepts and applications of logical reasoning. Offered spring only.
Transfer Credit: Transfers to CSU; UC: Does not meet the UC math admissions requirement. C-ID: MATH 120

MATH 18  Business Calculus
4 units; 4 hours Lecture
Prerequisite: MATH 152 or equivalent skills. Note: MATH 142 does NOT satisfy the prerequisite.
Repeatability: May be taken a total of 1 time.
Presents the techniques of calculus with emphasis placed on the application of these concepts to business and management-related problems. The applications of derivatives and integrals of functions including polynomial, rational, exponential and logarithmic functions are studied. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC, with limits: MATH 5A & 18 combined: maximum credit-1 course. C-ID: MATH 140

MATH 23  Discrete Mathematics
4 units; 3 hours Lecture, 3 hours Laboratory
Prerequisite: CS 11 or CS 11M or CS 12GP or CS 12J or equivalent skills; MATH 5A or equivalent skills.
Recommended Preparation: CS 19 or CS 20J or equivalent skills.
Repeatability: May be taken a total of 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). May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC. C-ID: COMP 152

MATH 104  Math Success Strategies for Precalculus and Beyond
1.5 units; 4.5 hours Laboratory
Co-requisite: MATH 4
Repeatability: May be taken a total of 1 time.
Improves skills in computation, communication, critical thinking, and effective study approaches for precalculus and calculus, and is taken concurrently with MATH 4. Prepares students for precalculus and subsequent math coursework through review, consolidation of key concepts; practice communicating mathematical concepts to others; learning to make effective use of textbooks, peers, online resources; and forming a personalized study plan. May be taken Pass/No Pass only.
Transfer Credit: Non-transferable.

MATH 112  Pre-Statistics
5 units, 5 hours Lecture
Prerequisite: MATH 254SI or MATH 254CM or MATH 254B or equivalent skills.
Develops quantitative reasoning skills needed for elementary statistics through hands-on explorations of descriptive statistics, data analysis and probability, and linear and exponential models; satisfies prerequisite for MATH 12 only; NOT a prerequisite for any other math course. May not be taken Pass/No Pass.
Transfer Credit: Non-transferable.

MATH 142  Applied Intermediate Algebra
5 units; 5 hours Lecture
Prerequisite: MATH 154 or MATH 154B or equivalent skills.
Repeatability: May be taken a total of 1 time.
Presents intermediate algebra topics with an emphasis on data analysis and modeling; satisfies prerequisite for MATH 10, MATH 12, MATH 12H or MATH 15; NOT a prerequisite for MATH 2, MATH 3, MATH 4, MATH 13, or MATH 18. Topics include mathematical modeling using real-world data, systems of equations, and graphs; and linear, exponential, logarithmic, polynomial and quadratic functions, equations, and graphs. May be offered in a Distance-Learning Format. May not be taken Pass/No Pass.
Transfer Credit: Non-transferable.
MATH 142A  Applied Intermediate Algebra - First Half
4 units; 3 hours Lecture, 3 hours Laboratory
Prerequisite: MATH 154 or MATH 154B or equivalent skills.
Repeatability: May be taken a total of 1 time.
Presents the first half of Applied Intermediate Algebra and is designed
for a wide variety of students, including those who have been unsuccess­
ful in MATH 142, are math anxious, or desire a slower paced, year-long
version of MATH 142. When followed by MATH 142B satisfies Cabrillo's
math graduation requirement for Associate of Arts and
Associate of Science Degree. Successful completion of both MATH
142A and MATH 142B satisfies the prerequisite for MATH 10, MATH 12,
MATH 12H or MATH 15; NOT a prerequisite for MATH 2, MATH 3, MATH
4, MATH 13, or MATH 18. Topics include mathematical modeling using
real-world data and graphs as well as linear, exponential, and logarith­
mic functions and equations. May not be taken Pass/No Pass.
Transfer Credit: Non-transferable.

MATH 142B  Applied Intermediate Algebra - Second Half
4 units; 3 hours Lecture, 3 hours Laboratory
Prerequisite: MATH 142A.
Repeatability: May be taken a total of 1 time.
Presents the second half of Applied Intermediate Algebra and is de­
digned for a wide variety of students, including those who have been unsuccess­ful in MATH 142, are math anxious, or desire a slower paced, year-long
version of MATH 142. When completed after MATH 142A satisfies Cabrillo's math graduation requirement for Associate of Arts and
Associate of Science Degree. Successful completion of both MATH
142A and MATH 142B satisfies the prerequisite for MATH 10, MATH 12,
MATH 12H, or MATH 15; NOT a prerequisite for MATH 2, MATH 3, MATH
4, MATRH 13, or MATH 18. Topics include mathematical modeling using
real-world data and graphs as well as linear, polynomial and quadratic functions and equations. May not be taken Pass/No Pass.
Transfer Credit: Non-transferable.

MATH 152A  Intermediate Algebra - First Half
5 units; 4 hours Lecture, 4 hours Laboratory
Prerequisite: MATH 154 or MATH 154B or equivalent skills.
Repeatability: May be taken a total of 1 time.
Presents the first half of Intermediate Algebra and is designed for a
wide variety of students, including those who have been unsuccess­
ful in MATH 142, are math anxious, or desire a slower paced, year-long
version of MATH 152. When followed by MATH 152B satisfies Cabrillo's
math graduation requirement for Associate of Arts and Associate of
Science Degree. Covers linear equations, functions and graphs, sys­
tems of linear equations and inequalities, compound inequalities, fac­
toring, polynomial equations, rational expressions and rational equa­tions. Offered fall only. May not be taken Pass/No Pass.
Transfer Credit: Non-transferable.

MATH 152B  Intermediate Algebra - Second Half
5 units; 4 hours Lecture, 4 hours Laboratory
Prerequisite: MATH 152A.
Repeatability: May be taken a total of 1 time.
Presents the second half of Intermediate Algebra for Non-Science Ma­
jors and is designed for a wide variety of students, including those who
have been unsuccessful in MATH 142, are math anxious, or desire a
slower paced, year-long version of MATH 142. When followed by MATH
152B, satisfies Cabrillo's math graduation requirement for Associate of
Arts and Associate of Science Degree. Covers linear, exponential, and
logarithmic equations and functions along with modeling and appli­
cations. Successful completion of both MATH 142A and MATH 142B,
satisfies the prerequisite for MATH 10, MATH 12, MATH 12H, MATH 13,
or MATH 15; does NOT satisfy the prerequisite for MATH 2, MATH 3,
MATH 4, MATH 18, or MATH 23. May not be taken Pass/No Pass.
Transfer Credit: Non-transferable.

MATH 153  Geometry
3 units; 3 hours Lecture
Prerequisite: MATH 154 or equivalent skills.
Repeatability: May be taken a total of 1 time.
Introduces the vocabulary and principles of Euclidean geometry, de­
veloping critical thinking skills using inductive and deductive reason­
ing while exploring the concepts of congruence and similarity, the
properties of angles, lines, polygons, circles, and solids.
Transfer Credit: Non-transferable.
MATH 154 Elementary Algebra
5 units; 5 hours Lecture
Prerequisite: MATH 254B or MATH 254CM or MATH 254SI or MATH 350A and MATH 350B and MATH 350C or equivalent skills.
Repeatability: May be taken a total of 1 time.
Presents a systematic development of numbers, polynomials and polynomial fractions, along with applications to the solution of linear equations, graphing of and solutions for systems of linear equations, quadratic equations, and an introduction to exponents and radicals.
Contains topics typical of first-year high school algebra, but taught at a college level. May not be taken Pass/No Pass. May be offered in a Distance-Learning Format.
Transfer Credit: Non-transferable.

MATH 154A Elementary Algebra - First Half
5 units; 4 hours Lecture, 4 hours Laboratory
Prerequisite: MATH 254B or MATH 254CM or MATH 254SI or MATH 350A and MATH 350B and MATH 350C and MATH 350D and MATH 350E and MATH 350F or equivalent skills.
Repeatability: May be taken a total of 1 time.
Presents 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 equations and inequalities, graphing two variable linear equations, and two variable systems of equations. May not be taken Pass/No Pass.
Transfer Credit: Non-transferable.

MATH 154B Elementary Algebra-Second Half
5 units; 4 hours Lecture, 4 hours Laboratory
Prerequisite: MATH 154A.
Repeatability: May be taken a total of 1 time.
Presents 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, applications to the solution of quadratic equations, and an introduction to exponents and radicals. May not be taken Pass/No Pass.
Transfer Credit: Non-transferable.

MATH 158BF Algebra Review- Basic Factoring
0.5 unit; 1.5 hours Laboratory
Co-requisite: MATH 154 or higher level math course.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

MATH 158FT Field Teaching for Math and Science
1 unit; 1 hour Lecture
Prerequisite: MATH 4 or MATH 2 and MATH 3 or equivalent skills.
Repeatability: May be taken a total of 1 time.
Introduces the teaching of mathematics and science in middle and high schools providing opportunities to determine interest in the pursuit of a career in teaching. Student field work in middle/high school is required as part of the Aurora Teaching Initiative. May be taken Pass/No Pass only.
Transfer Credit: Non-transferable.

MATH 158PF Algebra Review-Polynomial Fractions
0.5 unit; 1.5 hours Laboratory
Co-requisite: MATH 154 or higher level math course.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

MATH 158SI Using the Metric System
0.5 unit; 1.5 hours Laboratory
Co-requisite: MATH 154 or higher level math course.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

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.
Repeatability: May be taken a total of 1 time.
Provides tutoring techniques and hands-on training for math tutors and those interested in tutoring mathematics. Emphasizes strategies for maximizing active learning. Specifically designed for students enrolled in or recently completing MATH 12, 12H, 13, 15, 5A, 5B, or 5C.
Transfer Credit: Non-transferable.

MATH 190A-Z Survey Topics in Mathematical Literacy
1 – 5 units; 1 – 5 hours Lecture or 3 – 15 hours Laboratory
Repeatability: May be taken a total of 1 time.
Presents math topics with an emphasis on numeracy. The specific course content will be described in the Schedule of Classes.
Transfer Credit: Non-transferable.
MATH 195A-Z  Survey Topics in the Scientific Method
2 units; 2 hours Lecture, 1 hour Laboratory
Repeatability: May be taken a total of 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 frame­
work and philosophy of the scientific method, which forms the basis of
the adoption and rejection of any theory in science.
Transfer Credit: Non-transferable.

MATH 254A  Essential Mathematics - First Half
4 units; 4 hours Lecture
Repeatability: May be taken a total of 1 time.
Presents the first half of Essential Mathematics and along with MATH
254B is equivalent to MATH 254CM or 254SI. Covers arithmetic proce­
dures involving whole numbers, fractions, and decimals integrated
with proportions.
Transfer Credit: Non-transferable.

MATH 254B  Essential Mathematics - Second Half
4 units; 4 hours Lecture
Prerequisite: MATH 254A or equivalent skills.
Repeatability: May be taken a total of 1 time.
Presents the second half of Essential Mathematics and is intended only
for students who have successfully completed MATH 254A. Covers in­
tegers, percents, linear equations, measurements, geometry, and sta­
tistics.
Transfer Credit: Non-transferable.

MATH 254CM  Essential Mathematics-Computer
Mediated
2 units; 6 hours Laboratory
Repeatability: May be taken a total of 1 time.
Presents topics in an accelerated format using computer software,
assisted by the instructor, and covers whole numbers, fractions, deci­
mals, percents, signed numbers, equations, statistics, proportions, and
geometry. May be offered in a Distance-Learning Format.
Transfer Credit: Non-transferable.

MATH 254SI  Essential Mathematics with
Supplemental Instruction
6 units; 6 hours Lecture
Recommended Preparation: Eligibility for READ 205 by Assessment.
Repeatability: May be taken a total of 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 compo­
nent.
Transfer Credit: Non-transferable.

MATH 301  Math PLUS: Pre-Algebra Review
0 units; 18-72 hours Laboratory
Co-requisite: MATH 300
Presents a review designed to strengthen students' math skills at the
essential math level and covers whole numbers, fractions, decimals,
percents, signed numbers, equations, statistics, proportions, and ge­
ometry.

MATH 302  Math PLUS: Essential Math
Preparation for Statistics
0 units; 5-72 hours Laboratory
Co-requisite: MATH 300
Presents a review designed to strengthen essential math skills and cov­
er topics and concepts considered necessary preparation for success
in statistics.

MATH 303  Math PLUS: Elementary Algebra
Review
0 units; 18-72 hours Laboratory
Co-requisite: MATH 300
Presents a review designed to strengthen students' math skills at the
elementary algebra level and covers a systematic development of
numbers, polynomials and polynomial fractions, along with applica­
tions to the solution of linear equations, graphing of and solutions for
systems of linear equations, quadratic equations, and an introduction
to exponents and radicals.

MATH 304  Math PLUS: Intermediate Algebra
Review
0 units; 18-72 hours Laboratory
Co-requisite: MATH 300
Presents a review designed to strengthen students' math skills at the
intermediate algebra level, which include the system of real numbers,
polynomials, algebraic equations (linear, systems of linear, quadratic,
and applications).
MATH 350A  Whole Numbers and Decimals
0 units; 42.6 hours Laboratory
Covers arithmetic procedures involving whole numbers and decimals.

MATH 350B  Fractions
0 units; 42.6 hours Laboratory
Covers arithmetic procedures involving fractions.

MATH 350C  Ratios, Proportions and Percents
0 units; 42.6 hours Laboratory
Covers arithmetic procedures involving ratios, proportions, and percents.

MATH 350D  Geometry, Graphs, Measurements, and Statistics
0 units; 42.6 hours Laboratory
Covers geometry, graphs, measurements, and statistics.

MATH 350E  Signed Numbers
0 units; 42.6 hours Laboratory
Covers arithmetic procedures involving signed numbers.

MATH 350F  Linear Equations
0 units; 42.6 hours Laboratory
Covers algebraic expressions and simple linear equations.

MATH 502  Supervised Tutoring
0 units; 10 hours Laboratory
Provides supervised tutoring assistance in basic skills mathematics and basic skills mathematics applications found in other courses.

MEDICAL ASSISTING
Health, Athletics, Wellness, and Kinesiology Division
Cynthia S. T. FitzGerald, PhD
HAWK Division, Associate Dean for Allied Health, SDLC & APE
Pamela Sanborn, Department Chair (831) 479-6438
Aptos Counseling: (831) 479-6274 for appointment
Watsonville Counseling: (831) 786-4734
Call (831) 479-6248 for more information
http://www.cabrillo.edu/programs

Medical Assisting A.S. Degree
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.

Learning Outcomes
1. Accurately and 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.

How to Apply
Admission to the Medical Assisting Program requires a separate and additional process to the general college admission. The Medical Assisting information and application form is available online at https://sites.google.com/a/cabrillo.edu/ma-learning-community/home
General college admission information is available on the Admissions & Records website found at http://cabrillo.edu/services/ar/

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.

A.S. General Education 21 Units
Core Courses (39 units) Units
MA 70 Medical Terminology ...................................................... 3
MA 100 Medical Assistant Essentials ................................. 4
MA 115 Administrative Skills for Medical Assistants .......... 8
MA 125* Clinical Skills for Medical Assistants I ................. 4
MA 135** Clinical Skills for Medical Assistants II ............... 6
MA 170 Medical Terminology - Structure & Function and Disease Processes of the Human Body .......... 4
MA 173A Medical Law & Ethics .............................................. 2
MA 184 Health Care Communication ................................. 2
CABT 38 Introduction to Microsoft Office ......................... 3-4
MA 101 Medical Assisting Externship ............................... 3

Total Units 60
*MA 125 must be taken within one year of externship.
**MA 135 must be taken in semester immediately preceding MA 101 (externship).
Medical Assisting Certificate of Achievement

The Cabrillo College Medical Assistant Program is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the Medical Assisting Education Review Board (MAERB).

Commission on Accreditation of Allied Health Education Programs (CAAHEP)
25400 US Highway 19 North, Suite 158
Clearwater, FL 33763
727-210-2350
www.caahep.org

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Learning Outcomes

1. Accurately and 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.

Core Courses (39 units)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>MA 70</td>
<td>Medical Terminology</td>
<td>3</td>
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<tr>
<td>MA 100</td>
<td>Medical Assistant Essentials</td>
<td>4</td>
</tr>
<tr>
<td>MA 115</td>
<td>Administrative Skills for Medical Assistants</td>
<td>8</td>
</tr>
<tr>
<td>MA 125*</td>
<td>Clinical Skills for Medical Assistants I</td>
<td>4</td>
</tr>
<tr>
<td>MA 135**</td>
<td>Clinical Skills for Medical Assistants II</td>
<td>6</td>
</tr>
<tr>
<td>MA 170</td>
<td>Medical Terminology - Structure &amp; Function and Disease Processes of the Human Body</td>
<td>4</td>
</tr>
<tr>
<td>MA 173A</td>
<td>Medical Law &amp; Ethics</td>
<td>2</td>
</tr>
<tr>
<td>MA 184</td>
<td>Health Care Communication</td>
<td>2</td>
</tr>
<tr>
<td>CABT 38</td>
<td>Introduction to Microsoft Office</td>
<td>3-4</td>
</tr>
<tr>
<td>MA 101</td>
<td>Medical Assisting Externship</td>
<td>3</td>
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</table>

Other Required Courses (3-6 units)

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>CABT 157</td>
<td>Business and Technical Writing</td>
<td>3</td>
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<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENGL 100</td>
<td>Elements of Writing</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ESL 100</td>
<td>High Advanced Academic ESL</td>
<td>4-6</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENGL 1A/1AH/1AMC/1AMCH</td>
<td></td>
<td>3</td>
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</tbody>
</table>

Total Units 42-46

*MA 125 must be taken within one year of externship.
**MA 135 must be taken in semester immediately preceding MA 101 (externship).

Medical Office Receptionist Skills Certificate

Learning Outcomes

1. Demonstrate and apply legal and ethical concepts, medical terminology, communication and administrative skills in a healthcare setting.

Required Courses

<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 105</td>
<td>Administrative Skills for Medical Office Receptionists</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Units 7

Phlebotomy Technician Skills Certificate

Learning Outcomes

1. Accurately and safely draw blood using capillary and venipuncture procedures.
2. Label, handle, and process blood and non-blood specimens to avoid preanalytical sources of error and deliver to appropriate department.

Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MA 130A</td>
<td>Phlebotomy</td>
<td>1.5</td>
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<tr>
<td>MA 130AL</td>
<td>Phlebotomy Lab</td>
<td>1</td>
</tr>
<tr>
<td>MA 130B</td>
<td>Phlebotomy-Advanced</td>
<td>1.5</td>
</tr>
<tr>
<td>MA 102</td>
<td>Phlebotomy Externship</td>
<td>2</td>
</tr>
<tr>
<td>MA 70</td>
<td>Medical Terminology</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units 9

*This course is required for California State Licensing, and must be taken within one year of MA 102.

Medical Assisting Courses

MA 70    Medical Terminology
3 units; 3 hours Lecture
Recommended Preparation: ENGL 100 or ESL 100 and READ 100.
Repeatability: May be taken a total of 1 time.
Teaches allied health students fundamentals of medical word building with emphasis on prefixes, word roots, suffixes, combining forms, abbreviations, and lay terms. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

MA 100   Medical Assistant Essentials
4 units; 4 hours Lecture
Repeatability: May be taken a total of 1 time.
Teaches essential principles, skills, and professionalism for success in the medical assistant profession.
Transfer Credit: Non-transferable.
MA 101  Medical Assisting Externship
3 units; 10 hours Laboratory
Prerequisite: Completion of the Medical Assisting Program.
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 1 time.
Provides a simulated employment experience for medical assisting students in an ambulatory healthcare facility. Students are supervised and unpaid.
Transfer Credit: Non-transferable.

MA 102  Phlebotomy Externship
2 units; 6.67 hours Laboratory
Prerequisite: Completion of the Phlebotomy Program.
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 1 time.
Provides a simulated employment experience for phlebotomy students in a healthcare facility. Students are supervised and unpaid.
Transfer Credit: Non-transferable.

MA 105  Administrative Skills for Medical Office Receptionists
4 units; 4 hours Lecture
Repeatability: May be taken a total of 1 time.
Teaches medical assisting students administrative skills utilized in outpatient medical settings. May be offered in a Distance-Learning Format.
Transfer Credit: Non-transferable.

MA 115  Administrative Skills for Medical Assistants
8 units; 8 hours Lecture
Prerequisite: MA 70 and Acceptance to the Cabrillo Medical Assisting Program.
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 1 time.
Teaches medical assisting students administrative skills utilized in outpatient medical settings. May be offered in a Distance-Learning Format.
Transfer Credit: Non-transferable.

MA 125  Clinical Skills for Medical Assistants I
4 units; 3 hours Lecture, 3 hours Laboratory
Prerequisite: MA 70.
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 1 time.
Teaches medical assisting students clinical skills utilized in outpatient medical settings. May be offered in a Distance-Learning Format.
Transfer Credit: Non-transferable.

MA 130A  Phlebotomy
1.5 units; 1.5 hours Lecture
Prerequisite: MA 70
Co-requisite: MA 130AL or current California phlebotomy certification.
Repeatability: May be taken a total of 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 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 certification examination to become certified. May be offered in a Distance-Learning Format.
Transfer Credit: Non-transferable.

MA 130AL  Phlebotomy Lab
1 unit; 4 hours Laboratory
Co-requisite: MA 130A or current California phlebotomy certification.
Repeatability: May be taken a total of 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 102) 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.
Transfer Credit: Non-transferable.
MA 130B Phlebotomy-Advanced
1.5 units; 1.5 hours Lecture
Prerequisite: MA 130A or current California phlebotomy certification; MA 130AL.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

MA 135 Clinical Skills for Medical Assistants II
6 units; 4 hours Lecture, 8 hours Laboratory
Hybrid Requisite: MA 125.
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 1 time.
Teaches medical assisting students advanced clinical skills utilized in outpatient medical settings. May be offered in a Distance-Learning Format.
Transfer Credit: Non-transferable.

MA 160 Basic ICD-10-CM and CPT Coding
1 unit; 1 hour Lecture
Prerequisite: MA 70.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

MA 165 Injection Short Course
1 unit; 0.5 hour Lecture, 1.5 hours Laboratory
Prerequisite: MA 70.
Repeatability: May be taken a total of 1 time.
Teaches allied health students and current health care employees the correct procedures for administering intramuscular, intradermal, and subcutaneous injections.
Transfer Credit: Non-transferable.

MA 170 Medical Terminology-Structure, Function, and Disease Processes of the Human Body
4 units; 4 hours Lecture
Recommended Preparation: Math 154.
Repeatability: May be taken a total of 1 time.
Teaches medical assisting students terms of anatomy, physiology, disease processes, pharmacology, diagnostic, operative, and x-ray procedures. May be offered in a Distance-Learning Format.
Transfer Credit: Non-transferable.

MA 172 Medical Office Procedures
4 units; 4 hours Lecture
Repeatability: May be taken a total of 1 time.
Teaches medical assistant students administrative skills and basic financial management utilized in outpatient medical settings.
Transfer Credit: Non-transferable.

MA 173A Medical Law & Ethics
2 units; 2 hours Lecture
Repeatability: May be taken a total of 1 time.
Teaches medical assisting students medical law, liability, and ethics.
May be offered in a Distance-Learning Format.
Transfer Credit: Non-transferable.

MA 181 Medical Insurance
3 units; 3 hours Lecture
Prerequisite: MA 160.
Repeatability: May be taken a total of 1 time.
Teaches theory and application of medical insurance billing and procedures as used in medical facilities.
Transfer Credit: Non-transferable.

MA 183C EKG Complete Skills
2 units; 1 hour Lecture, 3 hours Laboratory
Prerequisite: MA 70.
Repeatability: May be taken a total of 1 time.
Teaches electrocardiography skills, holter and stress monitoring, and recognition of cardiac irregularities.
Transfer Credit: Non-transferable.

MA 184 Health Care Communication
2 units; 2 hours Lecture
Repeatability: May be taken a total of 1 time.
Teaches medical assistant and other allied health students skills of professional conduct and interaction for healthcare settings and job-related social settings.
Transfer Credit: Non-transferable.
MA 185B  Phlebotomy
1 unit; 0.5 hour Lecture, 1.5 hours Laboratory
Prerequisite: MA 70.
Repeatability: May be taken a total of 1 time.
Teaches health students and current healthcare employees phlebotomy. Course does not satisfy California State Phlebotomy licensing requirements.
Transfer Credit: Non-transferable.

MA 189  Electronic Health Records
1.5 units; 1 hour Lecture, 1.5 hours Laboratory
Repeatability: May be taken a total of 1 time.
Teaches the use of electronic health records documenting patient encounter from scheduling to recording medical information. May be offered in a Distance-Learning Format.
Transfer Credit: Non-transferable.

MA 190A-Z  Special Topics in Medical Assistant
0.5 – 5 units; 0.5 – 5 hours Lecture
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

MUSIC
Visual, Applied, and Performing Arts Division
John Graulty, Division Dean
Division Office, Room VAPA 1007
Michael Strunk, Department Chair, (831) 477-3256
Aptos Counseling: (831) 479-6274 for appointment
Watsonville Counseling: (831) 786-4734
Call (831) 479-6464 for more information
http://www.cabrillo.edu/programs

Music A.A.-T Transfer Degree
The Music Program offers a comprehensive course of study for students to pursue their musical goals and interests, through rigorous coursework in theory, ear-training, sight-singing, applied study, keyboard skills and performance, in preparation for a successful audition and placement into a university music program. Students learn to accurately identify and describe composers and masterworks from various musical periods and genre, and to critically assess elements of music in the Classical and Jazz track, as well as demonstrate music principles in their own compositions. They learn to describe the unifying role of music throughout history and among world cultures. Learning experiences in music are presented through lecture, critique, discussion, supervised and individual practice, solo and ensemble performance, and concert attendance.

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 baccalaureate institutions 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.

Cabrillo offers options for degrees in Music. The first option listed below is the Associate in Arts in Music for Transfer (A.A.-T), which intended for students who plan to transfer and complete a bachelor's degree in a similar major at a CSU campus. Students completing the Associate in Arts in Music for Transfer (AA-T in Music) 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 or to a university or college 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, or a “P” if the course is taken on a “Pass/No Pass” basis.
Music A.A. Degree

Learning Outcomes

The Cabrillo College Core Competencies (with an emphasis in the study of Music):

1. Communication: Reading, Writing, Listening, Speaking, and/or Conversing
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving

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

<table>
<thead>
<tr>
<th>Course Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 5</td>
<td>Beginning Jazz/Pop Music Theory</td>
</tr>
<tr>
<td>or MUS 6</td>
<td>Fundamentals of Music</td>
</tr>
<tr>
<td>MUS 51A</td>
<td>Class Piano I</td>
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General Option - (6 units):

<table>
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<tr>
<th>Course Courses</th>
<th>Units</th>
</tr>
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<tbody>
<tr>
<td>MUS 1</td>
<td>Comprehensive Music Theory I</td>
</tr>
<tr>
<td>or MUS 2</td>
<td>Comprehensive Music Theory II</td>
</tr>
<tr>
<td>or MUS 3</td>
<td>Comprehensive Music Theory III</td>
</tr>
<tr>
<td>or MUS 4</td>
<td>Comprehensive Music Theory IV</td>
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Jazz Option - (6 units):

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<th>Course Courses</th>
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<tbody>
<tr>
<td>MUS 9A</td>
<td>Advanced Jazz Theory/Beginning</td>
</tr>
<tr>
<td>MUS 24A</td>
<td>Beginning Jazz Improvisation</td>
</tr>
<tr>
<td>MUS 24B</td>
<td>Intermediate Jazz Improvisation</td>
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<td>MUS 24C</td>
<td>Advanced Jazz Improvisation</td>
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Music Technology Option - (6 units):

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<th>Course Courses</th>
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<tr>
<td>MUS 7</td>
<td>Music Synthesis, Sampling, and Electronic Music</td>
</tr>
<tr>
<td>MUS 31A</td>
<td>Fundamental Recording Techniques I</td>
</tr>
<tr>
<td>MUS 57A</td>
<td>Music and Computers I: Digital Music Production</td>
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Performance Electives (4 Units)

<table>
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<tr>
<th>Course Courses</th>
<th>Units</th>
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<tbody>
<tr>
<td>MUS 36</td>
<td>Chorale</td>
</tr>
<tr>
<td>MUS 39</td>
<td>Westside Community Folk Song/Gospel Choir</td>
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<tr>
<td>MUS 61</td>
<td>Cabrillo Symphonic Chorus</td>
</tr>
<tr>
<td>MUS 62</td>
<td>Cabrillo Touring Chorus</td>
</tr>
<tr>
<td>MUS 64</td>
<td>Cantiamo Cabrillo</td>
</tr>
</tbody>
</table>

Total Units: 60
### Music Technology and Recording Arts A.S. Degree

The Music Technology and Recording Arts Associate in Science Degree is designed to prepare students for a career in the music industry. The course of study will cover all aspects of technology and music study including recording, production, engineering, digital audio, video, composition, live sound, and production. This skill set will prepare students for careers in sound engineering, performance, electronic music composition, sound design, music arranging, songwriting, broadcast engineering, and equipment manufacturing. This program is designed for those wishing to go directly into employment in the music industry; therefore, students wishing to transfer courses should consult with a counselor.

#### Learning Outcomes

The Cabrillo College Core Competencies (with an emphasis in the study of Music):

1. **Produce trained musicians capable of demonstrating professional quality musical projects that demonstrate the following knowledge and recording skills: pre and post production requirements, tracking, editing, mixing, effects processing, use of plug-ins, mastering of live or studio generated music, and knowledge and experience with the behavior of sound, hardware, software and the musical skills used in a professional recording environment.**

2. **Produce trained musicians capable of planning and executing the sound requirements for events in various environments, including studio, theatre, club, concert, convention, and other live situations, as a component of a professional production.**

#### A.S. General Education Requirements

<table>
<thead>
<tr>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>21</td>
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</table>

### Core Courses (20 Units)

<table>
<thead>
<tr>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
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<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>MUS 7</td>
<td>Music Synthesis, Sampling, and Electronic Music</td>
</tr>
<tr>
<td>MUS 31A</td>
<td>Fundamental Recording Techniques I</td>
</tr>
<tr>
<td>MUS 31B</td>
<td>Fundamental Recording Techniques II</td>
</tr>
<tr>
<td>MUS 31LS</td>
<td>Recording Techniques III: Live Sound Production</td>
</tr>
<tr>
<td>MUS 315S</td>
<td>Studio Production</td>
</tr>
<tr>
<td>MUS 31T</td>
<td>Theatrical Sound Production</td>
</tr>
<tr>
<td>MUS 57A</td>
<td>Music and Computers I: Digital Music Production</td>
</tr>
<tr>
<td>MUS 57B</td>
<td>Music and Computers II: Electronic Music</td>
</tr>
<tr>
<td>MUS 57NS</td>
<td>Music and Computers III: Music Notation and Scoring</td>
</tr>
<tr>
<td>MUS 80S</td>
<td>Special Studies in Music</td>
</tr>
<tr>
<td>MUS 199C</td>
<td>Career Work Experience Education</td>
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### Required MUS Courses (9 Units)

<table>
<thead>
<tr>
<th>Units</th>
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<tbody>
<tr>
<td>9</td>
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<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>MUS 5</td>
<td>Beginning Jazz/Pop Music Theory</td>
</tr>
<tr>
<td>MUS 10</td>
<td>Music Appreciation</td>
</tr>
<tr>
<td>MUS 10M</td>
<td>Historical Survey of Music</td>
</tr>
<tr>
<td>MUS 11A</td>
<td>Jazz Appreciation</td>
</tr>
<tr>
<td>MUS 11LA</td>
<td>Latin American Music Appreciation</td>
</tr>
<tr>
<td>MUS 12</td>
<td>World Music</td>
</tr>
<tr>
<td>MUS 13A</td>
<td>Survey of American Popular Music</td>
</tr>
<tr>
<td>MUS 77</td>
<td>Correlation of the Arts</td>
</tr>
</tbody>
</table>
Music Technology & Recording Arts Certificate of Achievement

The Music Technology and Recording Arts Certificate of Achievement is designed to prepare students for a career in the music industry. The course of study will cover all aspects of technology and music study including recording, production, engineering, digital audio, MIDI, composition, live sound, and publication. This skill set will prepare students for careers in sound engineering, performance, electronic music composition, sound design, music arranging, song writing, broadcast engineering, and equipment manufacturing. This program is designed for those wishing to go directly into employment in the music industry; therefore, students wishing to transfer courses should consult with a counselor.

Learning Outcomes

1. Produce trained musicians capable of creating professional quality musical projects that demonstrate the following knowledge and recording skills: pre and post production requirements, tracking, editing, mixing, effects processing, use of plug-ins, mastering of live or studio generated music, and knowledge and experience with the behavior of sound, hardware, software and the musical skills used in a professional recording environment.

2. Produce trained musicians capable of planning and executing the sound requirements for events in various environments, including studio, theatre, club, concert, convention, and other live situations, as a component of a professional production.

Core Courses (20 Units)

- MUS 7: Music Synthesis, Sampling, and Electronic Music
- MUS 31A: Fundamental Recording Techniques I
- MUS 31B: Fundamental Recording Techniques II
- MUS 31LS: Live Sound Production
- MUS 31SP: Studio Production
- MUS 31TS: Theatrical Sound Production
- MUS 57A: Music and Computers I: Digital Music Production
- MUS 57B: Music and Computers II: Electronic Music Composition Live Sound Production
- MUS 57NS: Music and Computers III: Music Notation and Scoring
- MUS 80S: Special Studies in Music
- MUS 199C: Career Work Experience Education

Required MUS Courses (9 Units)

- MUS 5: Beginning Jazz/Pop Music Theory
- MUS 6: Fundamentals of Music
- MUS 11A: Jazz Appreciation
- MUS 12: World Music
- MUS 13A: Survey of American Popular Music
- MUS 28: Popular Songwriting
- MUS 51A: Class Piano I

Music Performance Electives (2 Units)

- MUS 18CB: Intermediate Concert Band
- MUS 18JB: Intermediate Jazz Band
- MUS 20: Intermediate Orchestra
- MUS 36: Chorale
- MUS 38: Jazz Singers
- MUS 40: Chamber Music Ensemble
- MUS 46: Jazz Ensemble
- MUS 47: Guitar Ensemble
- MUS 49: College Symphonic Winds
- MUS 50: Jazz Repertory Workshop
- MUS 52: Percussion Ensemble
- MUS 56: Latin American Music Ensemble
- MUS 58: Cabrillo Symphonic Orchestra
- MUS 61: Cabrillo Symphonic Chorus
- MUS 64: Cantiamo Cabrillo

Music Applied Electives (2 Units)

- MUS 15A: Beginning Jazz and Popular Solo Voice
- MUS 17A: Beginning Voice
- MUS 17B: Intermediate Voice
- MUS 18A: Beginning Wind (Band) Instruments
- MUS 18B: Intermediate Wind (Band) Instruments
- MUS 19AA: Beginning Strings I
- MUS 22A: Intermediate Piano
- MUS 26A: Beginning Jazz/Rock Guitar Techniques
- MUS 26B: Advanced Jazz/Rock Guitar Techniques
- MUS 33A: Classical Guitar I
- MUS 51B: Class Piano II

Approved Electives (6 Units)

- BUS 88: Starting and Operating a New Small Business
- DM 34: Introduction to Video Production
- PHYS 10: Introduction to Physics
- TA 27: Theatre Production Workshop
- TA 28: Backstage Theatre

Total Units: 60
### Classical Guitar Skills Certificate

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.

#### Learning Outcomes
1. Synthesize technical and stylistic skills of solo and ensemble performance of literature for and with classical guitar.

#### Required Courses Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>MUS 40</td>
<td>Chamber Music Ensemble</td>
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<tr>
<td>MUS 46</td>
<td>Jazz Ensemble</td>
<td>1</td>
</tr>
<tr>
<td>MUS 47</td>
<td>Guitar Ensemble</td>
<td>1</td>
</tr>
<tr>
<td>MUS 49</td>
<td>College Symphonic Winds</td>
<td>1</td>
</tr>
<tr>
<td>MUS 50</td>
<td>Jazz Repertory Workshop</td>
<td>1</td>
</tr>
<tr>
<td>MUS 52</td>
<td>Percussion Ensemble</td>
<td>1</td>
</tr>
<tr>
<td>MUS 56</td>
<td>Latin American Music Ensemble</td>
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</tr>
<tr>
<td>MUS 58</td>
<td>Cabrillo Symphonic Orchestra</td>
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<tr>
<td>MUS 61</td>
<td>Cabrillo Symphonic Chorus</td>
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<td>MUS 64</td>
<td>Cantiamo Cabrillo</td>
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#### Music Applied Electives (2 Units)

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>MUS 15A</td>
<td>Beginning Jazz and Popular Solo Voice</td>
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<td>MUS 17A</td>
<td>Beginning Voice</td>
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<tr>
<td>MUS 17B</td>
<td>Intermediate Voice</td>
<td>1</td>
</tr>
<tr>
<td>MUS 18A</td>
<td>Beginning Wind (Band) Instruments</td>
<td>1</td>
</tr>
<tr>
<td>MUS 18B</td>
<td>Intermediate Wind (Band) Instruments</td>
<td>1</td>
</tr>
<tr>
<td>MUS 19AA</td>
<td>Beginning Strings I</td>
<td>1</td>
</tr>
<tr>
<td>MUS 22A</td>
<td>Intermediate Piano</td>
<td>1</td>
</tr>
<tr>
<td>MUS 26A</td>
<td>Beginning Jazz/Rock Guitar Techniques</td>
<td>1</td>
</tr>
<tr>
<td>MUS 26B</td>
<td>Advanced Jazz/Rock Guitar Techniques</td>
<td>1</td>
</tr>
<tr>
<td>MUS 33A</td>
<td>Classical Guitar I</td>
<td>1</td>
</tr>
<tr>
<td>MUS 51B</td>
<td>Class Piano II</td>
<td>1</td>
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#### Approved Electives (6 Units)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>BUS 88</td>
<td>Starting and Operating a New Business</td>
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</tr>
<tr>
<td>DM 34</td>
<td>Introduction to Video Production</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 10</td>
<td>Introduction to Physics</td>
<td>3</td>
</tr>
<tr>
<td>TA 27</td>
<td>Theatre Production Workshop</td>
<td>1-3</td>
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<tr>
<td>TA 28</td>
<td>Backstage Theatre</td>
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#### Other Required Courses

<table>
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<tr>
<th>Course Code</th>
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<tr>
<td>ENGL 100</td>
<td>Elements of Writing</td>
<td>3</td>
</tr>
<tr>
<td>ESL 100</td>
<td>High Advanced Academic ESL</td>
<td>4-6</td>
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<tr>
<td>ENGL 1A/1AH/1AMC/1AMCH</td>
<td></td>
<td>3</td>
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</table>

### Total Units: 42-45

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### Creative Careers - Discovering Self-Directed Pathways Skills Certificate

#### Learning Outcomes

Research and analyze ways to create impact and develop a livelihood in all visual, applied, and performing arts disciplines by identifying your WHY and focusing on unique, self-directed, non-traditional, and entrepreneurial pathways.

#### Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AH 79</td>
<td>Creative Careers - Discovering Self Directed Pathways</td>
<td>3</td>
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<tr>
<td>or AP 79</td>
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<tr>
<td>or ART 79</td>
<td>Creative Careers - Discovering Self Directed Pathways</td>
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<tr>
<td>or DANCE 79</td>
<td>Creative Careers - Discovering Self Directed Pathways</td>
<td>3</td>
</tr>
<tr>
<td>or DM 79</td>
<td>Creative Careers - Discovering Self Directed Pathways</td>
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</tr>
<tr>
<td>or MUS 79</td>
<td>Creative Careers - Discovering Self Directed Pathways</td>
<td>3</td>
</tr>
<tr>
<td>or TA 79</td>
<td>Creative Careers - Discovering Self Directed Pathways</td>
<td>3</td>
</tr>
</tbody>
</table>

*Special VAPA only cohort offering, typically offered every spring term*

#### Total Units: 7-10

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### Jazz/Pop Voice Skills Certificate

#### 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 Code</th>
<th>Course 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 MUS 6</td>
<td>Fundamentals of Music</td>
<td>3</td>
</tr>
<tr>
<td>or MUS 11A</td>
<td>Jazz Appreciation</td>
<td>3</td>
</tr>
<tr>
<td>or 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 MUS 51A</td>
<td>Class Piano I</td>
<td>1</td>
</tr>
</tbody>
</table>

#### Take 4 Units from a Performance Ensemble

#### Total Units: 15

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### Jazz Studies Skills Certificate

**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 influences on the Jazz idiom.

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 5</td>
<td>Beginning Jazz/Pop Music Theory 3</td>
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<td>MUS 6</td>
<td>Fundamentals of Music 3</td>
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</tr>
<tr>
<td>MUS 9A</td>
<td>Advanced Jazz Theory/Beginning Jazz Arranging 3</td>
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<tr>
<td>or</td>
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<tr>
<td>MUS 11A</td>
<td>Jazz Appreciation 3</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>MUS 11LA</td>
<td>Latin American Music Appreciation 3</td>
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<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>MUS 12</td>
<td>World Music 3</td>
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<tr>
<td>MUS 24A</td>
<td>Beginning Jazz Improvisation 1</td>
</tr>
<tr>
<td>MUS 24B</td>
<td>Intermediate Jazz Improvisation 1</td>
</tr>
<tr>
<td>MUS 24C</td>
<td>Advanced Jazz Improvisation 1</td>
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<tr>
<td>MUS 51A</td>
<td>Class Piano I 1</td>
</tr>
<tr>
<td>Take 4 Units from a Performance Ensemble</td>
<td></td>
</tr>
</tbody>
</table>

**Total Units** 17

### Latin American Music Skills Certificate

**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.

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 5</td>
<td>Beginning Jazz/Pop Music Theory 3</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>MUS 6</td>
<td>Fundamentals of Music 3</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>MUS 11LA</td>
<td>Latin American Music Appreciation 3</td>
</tr>
<tr>
<td>MUS 24A</td>
<td>Beginning Jazz Improvisation 1</td>
</tr>
<tr>
<td>MUS 27</td>
<td>Beginning Popular Guitar Techniques 1</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>MUS 51A</td>
<td>Class Piano I 1</td>
</tr>
<tr>
<td>MUS 52</td>
<td>Percussion Ensemble 1</td>
</tr>
<tr>
<td>MUS 52LA</td>
<td>Latin American Drumming 1</td>
</tr>
<tr>
<td>Take 4 Units from a Performance Ensemble</td>
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</tbody>
</table>

**Total Units** 14

### Jazz/Rock Guitar Skills Certificate

**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.

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 5</td>
<td>Beginning Jazz/Pop Music Theory 3</td>
</tr>
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<td>or</td>
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</tr>
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<td>MUS 6</td>
<td>Fundamentals of Music 3</td>
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<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>MUS 11A</td>
<td>Jazz Appreciation 3</td>
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<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>MUS 24A</td>
<td>Beginning Jazz Improvisation 1</td>
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<tr>
<td>MUS 24B</td>
<td>Intermediate Jazz Improvisation 1</td>
</tr>
<tr>
<td>MUS 24C</td>
<td>Advanced Jazz Improvisation 1</td>
</tr>
<tr>
<td>MUS 51A</td>
<td>Class Piano I 1</td>
</tr>
<tr>
<td>Take 4 Units from a Performance Ensemble</td>
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</tr>
</tbody>
</table>

**Total Units** 15

### Music Technology Skills Certificate

**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.

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 5</td>
<td>Beginning Jazz/Pop Music Theory 3</td>
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<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>MUS 6</td>
<td>Fundamentals of Music 3</td>
</tr>
<tr>
<td>MUS 7</td>
<td>Music Synthesis, Sampling, and Electronic Music 3</td>
</tr>
<tr>
<td>MUS 28</td>
<td>Popular Songwriting 2</td>
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<td>or</td>
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<tr>
<td>MUS 31B</td>
<td>Fundamental Recording Techniques II 1.5</td>
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<tr>
<td>MUS 31LS</td>
<td>Recording Techniques III: Live Sound Production 1.5</td>
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<tr>
<td>MUS 51A</td>
<td>Class Piano I 1</td>
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<tr>
<td>MUS 57A</td>
<td>Music and Computers I: Digital Music Production 1.5</td>
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<tr>
<td>and</td>
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<tr>
<td>MUS 57B</td>
<td>Music and Computers II: Electronic Music Composition 1.5</td>
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<td>or</td>
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<tr>
<td>MUS 57NS</td>
<td>Music and Computers III: Music Notation and Scoring 1.5</td>
</tr>
</tbody>
</table>

**Total Units** 12 - 13.5
Piano Skills Certificate

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 6</td>
<td>Fundamentals of Music</td>
<td>3</td>
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<tr>
<td>MUS 10</td>
<td>Music Appreciation</td>
<td>3</td>
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<tr>
<td>MUS 22A</td>
<td>Intermediate Piano</td>
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<tr>
<td>MUS 22B</td>
<td>Romantic and Contemporary Keyboard Techniques</td>
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<td>MUS 23</td>
<td>Advanced Piano</td>
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<td>MUS 51A</td>
<td>Class Piano I</td>
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<tr>
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<td>MUS 51C</td>
<td>Class Piano III</td>
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<td>MUS 51D</td>
<td>Class Piano IV</td>
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<td>MUS 68</td>
<td>Piano Ensemble</td>
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<tr>
<td>MUS 68CP</td>
<td>The Collaborative Pianist</td>
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</table>

Total Units 15

Voice Skills Certificate

Learning Outcomes
1. Analyze and perform Classical vocal music, demonstrating techniques and stylistic performance practice unique to each period of 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>
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<td>MUS 6</td>
<td>Fundamentals of Music</td>
<td>3</td>
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<td>MUS 10</td>
<td>Music Appreciation</td>
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<td>MUS 16</td>
<td>Applied Music: Winds, Strings, Brass, Piano,</td>
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<td>Voice, and Percussion</td>
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<td>MUS 17A</td>
<td>Beginning Voice</td>
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</tr>
<tr>
<td>MUS 17B</td>
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Take 4 Units from a Performance Ensemble

Total Units 17

Music Courses

MUS 1  Comprehensive Music Theory I
3 units; 3 hours Lecture, 1 hour Laboratory
Co-requisite: MUS 1M.
Recommended Preparation: MUS 6 or MUS 5 or equivalent skills.
Repeatability: May be taken a total of 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. Materials fee may apply.

Transfer Credit: Transfers to CSU; UC. C-ID: MUS 120

MUS 1M  Musicianship I
1 unit; 4 hours Laboratory
Co-requisite: MUS 1.
Recommended Preparation: MUS 5 or MUS 6.
Repeatability: May be taken a total of 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. Materials fee may apply.

Transfer Credit: Transfers to CSU; UC. C-ID: MUS 125

MUS 2  Comprehensive Music Theory II
3 units; 3 hours Lecture, 1 hour Laboratory
Prerequisite: MUS 1 or equivalent skills.
Co-requisite: MUS 2M.
Repeatability: May be taken a total of 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. Materials fee may apply.

Transfer Credit: Transfers to CSU; UC. C-ID: MUS 130

MUS 2M  Musicianship II
1 unit; 4 hours Laboratory
Prerequisite: MUS 1M or equivalent skills.
Co-requisite: MUS 2.
Repeatability: May be taken a total of 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. Materials fee may apply.

Transfer Credit: Transfers to CSU; UC. C-ID: MUS 135
MUS 3 Comprehensive Music Theory III
3 units; 3 hours Lecture, 1 hour Laboratory
Prerequisite: MUS 2 or equivalent skills.
Co-requisite: MUS 3M.
Repeatability: May be taken a total of 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. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC. C-ID: MUS 140

MUS 3M Musicianship III
1 unit; 4 hours Laboratory
Prerequisite: MUS 2M or equivalent skills.
Co-requisite: MUS 3.
Repeatability: May be taken a total of 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. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC. C-ID: MUS 145

MUS 4 Comprehensive Music Theory IV
3 units; 3 hours Lecture, 1 hour Laboratory
Prerequisite: MUS 2 or equivalent skills.
Co-requisite: MUS 4M.
Repeatability: May be taken a total of 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. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC. C-ID: MUS 150

MUS 4M Musicianship IV
1 unit; 4 hours Laboratory
Prerequisite: MUS 2M or equivalent skills.
Co-requisite: MUS 4.
Repeatability: May be taken a total of 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. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC. C-ID: MUS 155

MUS 5 Beginning Jazz/Pop Music Theory
3 units; 3 hours Lecture, 1 hour Laboratory
Repeatability: May be taken a total of 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. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC.

MUS 6 Fundamentals of Music
3 units; 3 hours Lecture, 1 hour Laboratory
Repeatability: May be taken a total of 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. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC, with limits: No credit if taken after 1 or 1M. C-ID: MUS 110

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.
Repeatability: May be taken a total of 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. Materials fee may apply.
Transfer Credit: 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.
Repeatability: May be taken a total of 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. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC.
**MUS 10**  **Music Appreciation**  
3 units; 3 hours Lecture, 1 hour Laboratory  
Repeatability: May be taken a total of 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. Materials fee may apply.  
*Transfer Credit:* Transfers to CSU; UC. C-ID: MUS 100

**MUS 11A**  **Jazz Appreciation**  
3 units; 3 hours Lecture, 1 hour Laboratory  
Repeatability: May be taken a total of 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. Materials fee may apply. May be offered in a Distance-Learning Format.  
*Transfer Credit:* Transfers to CSU; UC.

**MUS 11LA**  **Latin American Music Appreciation**  
3 units; 3 hours Lecture, 1 hour Laboratory  
Repeatability: May be taken a total of 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. Materials fee may apply.  
*Transfer Credit:* Transfers to CSU; UC.

**MUS 12**  **World Music**  
3 units; 3 hours Lecture, 1 hour Laboratory  
Repeatability: May be taken a total of 1 time.  
Surveys the traditional music cultures of Asia, Africa, Europe, Native America, and Latin America. Emphasis is on the evolution and performance practices of musical styles and the relationship between a culture's music and its religious, political, and social structure. May be offered in a Distance-Learning Format. 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 fee may apply.  
*Transfer Credit:* Transfers to CSU; UC.

**MUS 13A**  **Survey of American Popular Music**  
3 units; 3 hours Lecture, 1 hour Laboratory  
Repeatability: May be taken a total of 1 time.  
Surveys American popular music as represented by pop, rock, jazz, classical, country western, theatre music, regional and traditional folk music and their cross cultural and world music influences. 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. Materials fee may apply.  
*Transfer Credit:* Transfers to CSU; UC.

**MUS 15A**  **Beginning Jazz and Popular Solo Voice**  
1 unit; 0.5 hour Lecture, 2.5 hours Laboratory  
Repeatability: May be taken a total of 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. Materials fee may apply.  
*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.  
Repeatability: May be taken a total of 1 time.  
Studies and performs advanced level songs in the popular and jazz idioms, incorporating stylistic elements from MUS 15A. Analysis of historical and motivational aspects of performances. 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 fee may apply.  
*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.  
Repeatability: May be taken a total of 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. Materials fee may apply.  
*Transfer Credit:* Transfers to CSU.
MUS 16  Applied Music: Winds, Strings, Brass, Piano, Voice, and Percussion
1 unit; 1 hour Lecture, 1 hour Laboratory
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. 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 fee may apply.
Transfer Credit: Transfers to CSU; UC. C-ID: MUS 160

MUS 17A  Beginning Voice
1 unit; 0.5 hour Lecture, 2.5 hours Laboratory
Repeatability: May be taken a total of 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. Materials fee may apply.
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.
Repeatability: May be taken a total of 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. Materials fee may apply.
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.
Repeatability: May be taken a total of 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. Materials fee may apply.
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.
Repeatability: May be taken a total of 1 time.
Prepares 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. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC.

MUS 18A  Beginning Wind, Brass, and Percussion Instruments
1 unit; 4 hours Laboratory
Repeatability: May be taken a total of 1 time.
Provides group instruction on flute, oboe, bassoon, clarinet, saxophone, trumpet, French horn, trombone, baritone, and tuba, along with the standard drums and percussion instruments. No experience necessary. Students should provide their own instruments although 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. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC.

MUS 18B  Intermediate Wind, Brass, and Percussion Instruments
1 unit; 4 hours Laboratory
Recommended Preparation: MUS 18A or equivalent experience.
Repeatability: May be taken a total of 1 time.
Continues group instruction on flute, oboe, bassoon, clarinet, saxophone, trumpet, French horn, trombone, baritone, and tuba along with the standard drums and percussion instruments. Emphasis is on increasing tone production and musicality through sight-reading and rehearsal 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. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC.

MUS 18CB  Intermediate Concert Band
1 unit; 4 hours Laboratory
Recommended Preparation: MUS 18A or equivalent skills, demonstrated by audition.
Repeatability: May be taken a total of 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 on sight-reading and rehearsal techniques. Must have ability to read intermediate music at sight and play an instrument with intermediate 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. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC. C-ID: MUS 180
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.  
Repeatability: May be taken a total of 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. Materials fee may apply.  
Transfer Credit: Transfers to CSU; UC. C-ID: MUS 180

MUS 19AA  Beginning Strings I  
1 unit; 4 hours Laboratory  
Repeatability: May be taken a total of 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. Materials fee may apply.  
Transfer Credit: Transfers to CSU; UC.

MUS 19BB  Beginning Strings II  
1 unit; 4 hours Laboratory  
Recommended Preparation: MUS 19AA or equivalent skills.  
Repeatability: May be taken a total of 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. Materials fee may apply.  
Transfer Credit: Transfers to CSU; UC.

MUS 20  Intermediate Orchestra  
1 unit; 4 hours Laboratory  
Prerequisite: Audition required.  
Repeatability: May be taken a total of 4 times.  
Rehearses and performs musical pieces for large and small orchestral ensembles; for strings, winds, and piano, culminating in public performance, with emphasis on sight reading and rehearsal techniques. Must have ability to read intermediate 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 details about this course offering. Materials fee may apply.  
Transfer Credit: Transfers to CSU; UC. C-ID: MUS 180

MUS 22A  Intermediate Piano  
1 unit; 4 hours Laboratory  
Prerequisite: MUS 51B or equivalent skills.  
Repeatability: May be taken a total of 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. Materials fee may apply.  
Transfer Credit: Transfers to CSU; UC.

MUS 22B  Romantic and Contemporary Keyboard Techniques  
1 unit; 4 hours Laboratory  
Prerequisite: MUS 22A or equivalent skills.  
Repeatability: May be taken a total of 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. Materials fee may apply.  
Transfer Credit: Transfers to CSU; UC.

MUS 23  Advanced Piano  
1 unit; 4 hours Laboratory  
Prerequisite: MUS 22B or equivalent skills.  
Repeatability: May be taken a total of 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. 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 fee may apply.  
Transfer Credit: Transfers to CSU; UC.

MUS 23L  Survey of Keyboard Pedagogy Through Literature  
1 unit; 4 hours Laboratory  
Prerequisite: MUS 22B or equivalent skills.  
Repeatability: May be taken a total of 1 time.  
Studies styles of teaching piano literature through a survey of compositions from the English Virginalists through twentieth-century composers. Historical, formal, and stylistic considerations of music will be presented. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for details about this course offering. Materials fee may apply.  
Transfer Credit: Transfers to CSU; UC.
MUS 24A  Beginning Jazz Improvisation
1 unit; 0.5 hour Lecture, 2.5 hours Laboratory
Repeatability: May be taken a total of 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. Materials fee may apply.
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.
Repeatability: May be taken a total of 1 time.
Concludes the Jazz Improvisation program of study, with an emphasis on characteristics of historical styles and literature in the Jazz medium. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC.

MUS 24B  Intermediate Jazz Improvisation
1 unit; 0.5 hour Lecture, 2.5 hours Laboratory
Prerequisite: MUS 24A or equivalent skills.
Repeatability: May be taken a total of 1 time.
Continues the study of basics and scale foundations for jazz improvisation initiated in MUS 24A, including altered chords and altered scales. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC.

MUS 24C  Advanced Jazz Improvisation
1 unit; 0.5 hour Lecture, 2.5 hours Laboratory
Prerequisite: MUS 24B or equivalent skills.
Repeatability: May be taken a total of 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. Materials fee may apply.
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.
Repeatability: May be taken a total of 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. Materials fee may apply. May be offered in a Distance-Learning Format.
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.
Repeatability: May be taken a total of 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. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC.

MUS 27  Beginning Popular Guitar Techniques
1 unit; 0.5 hour Lecture, 2.5 hours Laboratory
Repeatability: May be taken a total of 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. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC.

MUS 28  Popular Songwriting
2 units; 1 hour Lecture, 3 hours Laboratory
Repeatability: May be taken a total of 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. Materials fee may apply.
Transfer Credit: Transfers to CSU.

MUS 31A  Fundamental Recording Techniques I
1.5 units; 1.5 hours Lecture, 1 hour Laboratory
Recommended Preparation: MUS 5 or MUS 6 or equivalent skills.
Repeatability: May be taken a total of 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. Materials fee may apply. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.
MUS 31B  Fundamental Recording Techniques II
1.5 units; 1.5 hours Lecture, 1 hour Laboratory
Prerequisite: MUS 31A or equivalent experience.
Repeatability: May be taken a total of 1 time.
Continues development of recording skills for studio musicians and
home or professional recording engineers, maximizing the produc-
tion capabilities of combining computer technology with traditional
recording techniques. Materials fee may apply. May be offered in a Dis-
tance-Learning Format.
Transfer Credit: Transfers to CSU.

MUS 31LS  Live Sound Production
1.5 units; 1.5 hours Lecture, 1 hour Laboratory
Prerequisite: MUS 31B or equivalent experience.
Repeatability: May be taken a total of 1 time.
Studies elements of sound production related to live performance,
including mixing, monitoring, equipment set up, microphoning, EQ,
music/theatrical production, event recording.
Transfer Credit: Transfers to CSU.

MUS 31SP  Studio Production
1.5 units; 1.5 hours Lecture, 1 hour Laboratory
Prerequisite: MUS 31B or equivalent experience.
Repeatability: May be taken a total of 1 time.
Studies elements of pre-production, music arranging, rehearsal tech-
niques, scheduling, budgeting, production, and multi-track/live studio
recording. Challenges students to synthesize their technical skills and
musical knowledge to create, prepare, and fully produce music proj-
ects. Transfer Credit: Transfers to CSU.

MUS 31TS  Theatrical Sound Production
1.5 units; 1.5 hours Lecture, 1 hour Laboratory
Prerequisite: MUS 31LS.
Repeatability: May be taken a total of 1 time.
Prepares the live sound student for a larger performance environment
and real-life experience producing sound reinforcement for music,
theater, and dance performances in venues such as Cabrillo College?s
Samper Recital Hall, Black Box, and Crocker Theaters.
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 or equivalent skills.
Repeatability: May be taken a total of 1 time.
Introduces basic classical guitar technique and repertoire for the stu-
dent with little or no experience, including music reading and right
and left hand techniques. Students will learn simple pieces in the clas-
sical 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. Ma-
terials fee may apply.
Transfer Credit: Transfers to CSU; UC.

MUS 36  Chorale
1 unit; 4 hours Laboratory
Prerequisite: Audition required.
Repeatability: 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. 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 details about this course offering.
Materials fee may apply.
Transfer Credit: Transfers to CSU; UC. C-ID: MUS 180

MUS 38  Jazz Singers
1 unit; 4 hours Laboratory
Prerequisite: By audition.
Repeatability: 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. Some of the class
hours for this course may be scheduled a To Be Arranged (TBA). See
the Schedule of Classes for the details about this course offering. Ma-
terials fee may apply.
Transfer Credit: Transfers to CSU; UC.
MUS 39  Westside Community Folk Song/Gospel Choir  
1 unit; 4 hours Laboratory  
Repeatability: May be taken a total of 4 times.  
Studies and performs multicultural choral literature of folk, gospel, African, South American, Asian, and European music; students should have the ability to match pitch. Public performance required. Materials fee may apply.  
Transfer Credit: Transfers to CSU; UC. C-ID: MUS 180

MUS 40  Chamber Music Ensemble  
1 unit; 4 hours Laboratory  
Prerequisite: Audition required.  
Repeatability: 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. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for details about this course offering. Materials fee may apply.  
Transfer Credit: Transfers to CSU; UC

MUS 46  Jazz Ensemble  
1 unit; 4 hours Laboratory  
Prerequisite: By audition.  
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. See the Schedule of Classes for the details about this course offering. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for details about this course offering. Materials fee may apply.  
Transfer Credit: Transfers to CSU; UC. C-ID: MUS 180

MUS 47  Guitar Ensemble  
1 unit; 3 hours Laboratory  
Recommended Preparation: MUS 26A and MUS 26B or MUS 33A or equivalent skills.  
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. 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 fee may apply.  
Transfer Credit: Transfers to CSU; UC

MUS 49  College Symphonic Winds  
1 unit; 4 hours Laboratory  
Prerequisite: By audition.  
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. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for details about this course offering. Materials fee may apply.  
Transfer Credit: Transfers to CSU; UC. C-ID: MUS 180

MUS 50  Jazz Repertory Workshop  
1 unit; 4 hours Laboratory  
Recommended Preparation: MUS 24C or equivalent skills.  
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. Materials fee may apply.  
Transfer Credit: Transfers to CSU; UC

MUS 50LJ  Latin Jazz Ensemble  
1 unit; 4 hours Laboratory  
Recommended Preparation: Proficiency as an instrumentalist or a vocalist and MUS 24A or equivalent skills.  
Repeatability: May be taken a total of 4 times.  
Teaches jazz-oriented musical styles from the Afro-Cuban, Brazilian and Salsa traditions through rehearsal and public performance. Audition required. Materials fee may apply.  
Transfer Credit: Transfers to CSU; UC
MUS 51A  Class Piano I  
1 unit; 4 hours Laboratory  
Repeatability: May be taken a total of 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 independ­
ent hands in classical and popular styles. Some of the class hours for 
this course may be scheduled as To Be Arranged (TBA). See the Sched­
ule of Classes for the details about this course offering. Materials fee 
may apply.  
Transfer Credit: Transfers to CSU; UC.

MUS 51B  Class Piano II  
1 unit; 4 hours Laboratory  
Prerequisite: MUS 51A or equivalent skills.  
Repeatability: May be taken a total of 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 of­
fering. Materials fee may apply.  
Transfer Credit: Transfers to CSU; UC.

MUS 51C  Class Piano III  
1 unit; 4 hours Laboratory  
Recommended Preparation: MUS 51B or equivalent skills.  
Repeatability: May be taken a total of 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 Sched­
ule of Classes for the details about this course offering. Materials fee 
may apply.  
Transfer Credit: Transfers to CSU; UC.

MUS 51D  Class Piano IV  
1 unit; 4 hours Laboratory  
Recommended Preparation: MUS 51C or equivalent skills.  
Repeatability: May be taken a total of 1 time.  
Concludes the class piano series with an emphasis on scales, arpe­
ggios, 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 Sched­
ule of Classes for the details about this class offering. Materials fee may 
apply.  
Transfer Credit: Transfers to CSU; UC.

MUS 52  Percussion Ensemble  
1 unit; 3 hours Laboratory  
Repeatability: May be taken a total of 4 times.  
Introduces performance techniques of drums and percussion instru­
ments used in contemporary jazz, popular, classical, and world music.  
Explores rhythmic development and coordination in sectional and 
full ensemble settings. 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 52LA  Latin American Drumming  
1 unit; 3 hours Laboratory  
Repeatability: May be taken a total of 1 time.  
Develops hand drumming technique and rhythmic comprehen­
sion through the exploration of African-influenced Latin American 
rhythms. Studies rhythms from Cuba and other Caribbean cultures, 
Brazil, Colombia, Venezuela, and Peru. 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 56  Latin American Music Ensemble  
1 unit; 3 hours Laboratory  
Prerequisite: By audition.  
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. 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 fee may apply.  
Transfer Credit: Transfers to CSU; UC.

MUS 57A  Music and Computers I: Digital Music 
Production  
1.5 units; 1.5 hours Lecture, 1 hour Laboratory  
Recommended Preparation: MUS 5 or MUS 6 or equivalent experience.  
Repeatability: May be taken a total of 1 time.  
Introduces digital music production through the use of MIDI sequenc­
ing, digital audio, mixing, editing, and software. Materials fee may ap­
ply. May be offered in a Distance-Learning Format.  
Transfer Credit: Transfers to CSU.
**MUS 57B  Music and Computers II: Electronic Music Composition**
1.5 units; 1.5 hours Lecture, 1 hour Laboratory
Prerequisite: MUS 57A or equivalent experience.
Repeatability: May be taken a total of 1 time.
Continues the study of computer-based music production, with an emphasis on electronic music composition, synthesis, and sound design utilizing current hardware and software programs. Materials fee may apply. May be offered in a Distance-Learning Format.
*Transfer Credit: Transfers to CSU.*

**MUS 57NS  Music and Computers III: Music Notation and Scoring**
1.5 units; 1.5 hours Lecture, 1 hour Laboratory
Prerequisite: MUS 57A or MUS 57B or equivalent experience.
Repeatability: May be taken a total of 1 time.
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. Materials fee may apply. May be offered in a Distance-Learning Format.
*Transfer Credit: Transfers to CSU.*

**MUS 58  Cabrillo Symphonic Orchestra**
1 unit; 4 hours Laboratory
Prerequisite: By Audition.
Repeatability: May be taken a total of 4 times.
Rehearses and performs Baroque 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. Materials fee may apply.
*Transfer Credit: Transfers to CSU; UC. C-ID: MUS 180.*

**MUS 61  Cabrillo Symphonic Chorus**
1 unit; 4 hours Laboratory
Prerequisite: By audition.
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 Romantic and Contemporary periods, unaccompanied and with an 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. Materials fee may apply.
*Transfer Credit: Transfers to CSU; UC. C-ID: MUS 180.*

**MUS 62  Cabrillo Touring Chorus**
1 unit; 4 hours Laboratory
Prerequisite: By audition.
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. 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; 4 hours Laboratory
Prerequisite: By audition.
Repeatability: May be taken a total of 4 times.
Rehearses and performs advanced-level Romantic through Avant Garde literature arranged for vocal chamber ensemble, including opera scenes; audition includes sight reading, ear-training, demonstration of language skills. Materials fee may apply.
*Transfer Credit: Transfers to CSU; UC.*

**MUS 68  Piano Ensemble**
1 unit; 4 hours Laboratory
Prerequisite: MUS 51B or equivalent skills.
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. Materials fee may apply.
*Transfer Credit: Transfers to CSU; UC.*

**MUS 68CP  The Collaborative Pianist**
1 unit; 4 hours Laboratory
Recommended Preparation: MUS 51B or equivalent skills.
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. 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 fee may apply.
*Transfer Credit: Transfers to CSU; UC.*
MUS 75  Musical Theatre Production
1 – 3 units; 3 – 9 hours Laboratory
Prerequisite: By audition.
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. 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 fee may apply.
Transfer Credit: Transfers to CSU; UC.

MUS 77  Correlation of the Arts
3 units; 3 hours Lecture, 1 hour Laboratory
Repeatability: May be taken a total of 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. Materials fee may apply. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC.

MUS 79  Creative Careers-Discovering Self-Directed Pathways
3 units; 3 hours Lecture, 1 hour Laboratory
Repeatability: May be taken a total of 1 time.
Investigates creative career opportunities in all visual, applied, and performing arts disciplines, with a focus on unique, self-directed, non-traditional, and entrepreneurial pathways and the academic and life choices necessary to realize such opportunities. May be offered in a Distance-Learning Format. Materials fee may apply. AH 79, ART 79, AP 79, DANCE 79, DM 79, MUS 79, and TA 79 are cross listed courses. Students may enroll in only one course for credit.
Transfer Credit: Transfers to CSU.

MUS 85A-Z  Studies in Music
1 – 3 units; 0.5 – 1.5 hours Lecture, 1.5 – 3 hours Laboratory
Repeatability: May be taken a total of 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. Materials fee may apply.
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 150  Music Laboratory
0.5 – 2 units; 1.5 – 6 hours Laboratory
Repeatability: May be taken a total of 1 time.
Provides supervised audio/video/e-learning lab work relating to other Music course curriculum, designed to progressively increase and improve student skills and concepts. Pass/No Pass only. Enrollment is permitted through the twelfth week of instruction. Materials fee may apply.
Transfer Credit: Non-transferable.

MUS 199C  Career Work Experience Education
0.5 – 4 units; 0 hour Lecture
Repeatability: May be taken a total of 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. Materials fee may apply.
Transfer Credit: Non-transferable.

MUS 520  Intermediate Orchestra for Older Adults
0 units; 4 hours Laboratory
Repeatability: May be taken a total of 20 times.
Rehearses and performs orchestral literature for intermediate string and wind players, culminating in public performance; designed for older adult learners. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for details about this course offering. Materials fee may apply.

MUS 536  Chorale for Older Adults
0 units; 4 hours Laboratory
Prerequisite: By audition.
Repeatability: May be taken a total of 20 times.
Rehearses and performs choral literature from various cultures and classical music periods; designed for older adults. Students should demonstrate basic music reading skills and match pitch. 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 details about this course offering. Materials fee may apply.
MUS 538  Vocal Jazz Ensemble for Older Adults
0 units; 4 hours Laboratory
Prerequisite: By audition.
Repeatability: May be taken a total of 20 times.
Studies and performs vocal jazz repertoire arranged for eight to twenty voices; designed for older adults who are proficient in singing, as demonstrated by audition. 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 fee may apply.

MUS 539  Westside Community Folk Song/Gospel Choir for Older Adults
0 units; 4 hours Laboratory
Repeatability: May be taken a total of 20 times.
Studies and performs multicultural choral literature of folk, gospel, African, South American, Asian, and European music; for experienced and inexperienced singers. Designed for older adults. Students should have the ability to match pitch. Public performance required. Materials fee may apply.

MUS 540  Chamber Music Ensemble for Older Adults
0 units; 4 hours Laboratory
Repeatability: May be taken a total of 20 times.
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 details about this course offering. Materials fee may apply.

MUS 546  Jazz Ensemble for Older Adults
0 units; 4 hours Laboratory
Prerequisite: By audition.
Repeatability: May be taken a total of 20 times.
Rehearses and performs literature arranged for jazz ensemble; designed for older adults who are proficient in voice or an instrument as demonstrated by audition. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for details about this course offering. Materials fee may apply.

MUS 547  Guitar Ensemble for Older Adults
0 units; 3 hours Laboratory
Prerequisite: By audition.
Repeatability: May be taken a total of 20 times.
Rehearses and performs classical and popular guitar music arranged for large and small ensembles. Designed for older adults. 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 fee may apply.

MUS 549  College Symphonic Winds for Older Adults
0 units; 4 hours Laboratory
Prerequisite: By audition.
Repeatability: May be taken a total of 20 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 and play a wind or percussion instrument at college level proficiency, which is demonstrated by audition. Designed for older adult learners. 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 fee may apply.

MUS 550  Jazz Repertory Workshop for Older Adults
0 units; 4 hours Laboratory
Prerequisite: By audition.
Repeatability: May be taken a total of 20 times.
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. Materials fee may apply.
MUS 556  Latin American Music Ensemble for Older Adults
0 units; 4 hours Laboratory
Repeatability: May be taken a total of 20 times.
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. Some of the class hours for this course may be scheduled a To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering. Materials fee may apply.

MUS 558  Cabrillo Symphonic Orchestra for Older Adults
0 units; 4 hours Laboratory
Repeatability: May be taken a total of 20 times.
Rehearses and performs Baroque 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. Designed for older adult learners. Materials fee may apply.

MUS 561  Cabrillo Symphonic Chorus for Older Adults
0 units; 4 hours Laboratory
Prerequisite: By audition.
Repeatability: May be taken a total of 20 times.
Provides an in-depth study of choral music techniques, and performance of large choral ensemble masterworks from the Romantic and Contemporary periods, unaccompanied and with an 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 details about this course offering. Materials fee may apply. Designed for older adults.

MUS 562  Cabrillo Touring Chorus for Older Adults
0 units; 4 hours Laboratory
Prerequisite: By audition.
Repeatability: May be taken a total of 20 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. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for details about this course offering. Designed for older adults.

MUS 563  Cabrillo Chamber Choir for Older Adults
0 units; 5 hours Laboratory
Prerequisite: By audition.
Repeatability: May be taken a total of 20 times.
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. Materials fee may apply.

MUS 564  Cantiamo Cabrillo for Older Adults
0 units; 4 hours Laboratory
Prerequisite: By audition.
Repeatability: May be taken a total of 20 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. Designed for older adult learners. Materials fee may apply.

MUS 565  Cabrillo Women's Choir for Older Adults
0 units; 4 hours Laboratory
Prerequisite: By audition.
Repeatability: May be taken a total of 20 times.
Provides a no-audition chorus to study music arranged for women's voices, performing classical and popular styles. Builds vocal and musicianship skills in a small ensemble designed to provide individual attention through the study of choral music arranged for women. Designed for older adult learners. Some of the class hours for this course may be scheduled a To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering. Designed for older adults. Materials fee may apply.

MUS 568  Piano Ensemble for Older Adults
0 units; 4 hours Laboratory
Repeatability: May be taken a total of 20 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; designed for older adults. 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 fee may apply.
NURSING
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Cynthia S. T. FitzGerald, PhD
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Aptos Counseling: (831) 479-6274 for appointment
Watsonville Counseling: (831) 786-4734
https://www.cabrillo.edu/programs/

Nursing A.S. Degree
Associate Degree Nursing Program Students are admitted to the Associate Degree Nursing (ADN) Program in fall or spring of each year. Theory courses, practice skills labs, and clinical experiences are coordinated to enhance learning. There are required morning, afternoon, evening, and weekend clinical experiences. Clinical start times may change with limited notice. Program retention is based on a minimum grade of “C” in all required courses in the published nursing program curriculum. Upon successful completion students are eligible to write the National Council Licensure Examination for Registered Nurses (NCLEX-RN). Due to the rigorous academic nature of the Associate Degree Nursing Program, it is advisable to complete the general education requirements before entering the program.

There are two methods to enroll in the nursing program. Students who are currently waitlisted will be invited to enter the program at each enrollment window. No additional students will be added to the waitlist. The second method of enrollment is through the Multi Criteria Selection Process (MCSP) application.

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 will be available on the website www.cabrillo.edu/academics/nursing during the open application period. General college admission information is available on the Admissions & Records website found at http://cabrillo.edu/services/ar/. Read all material in the application packet and the appropriate sections of the Cabrillo College Catalog about the Associate Degree of nursing program, academic regulations, attendance, and graduation requirements. Return the completed nursing application forms to the Nursing Education Department by mail using a method that provides delivery confirmation and postmark date. Applications will not be considered complete if prerequisites are in progress and/or the student’s files are incomplete.

Process of Application
The nursing program uses the Multi Criteria Selection Process (MCSP). Students using the MCSP application must reapply each year.

A complete application includes:
• Nursing application form, MCSP criteria scoring sheet, supporting documentation for the scoring sheet.
• Cabrillo College courses only: Print one (1) WebAdvisor unofficial transcripts.
• ALL other colleges/universities attended: one (1) sealed official transcripts.
• The application and all supporting documents must be submitted by the posted due date for the candidate’s application to be reviewed and, if qualified, to be placed into the random pool for selection.
• If selected the candidate must take the Test of Essential Academic Skills (TEAS) developed by Assessment Technologies Institute, LLC (ATI) and qualify to enter the program.

Additional information is available on the Cabrillo Nursing Program website. All prerequisites and nursing courses must be completed with a grade of “C”( 2.0 GPA) or better, except BIO 4, BIO 5, and BIO 6. These courses must be completed with a combined GPA of 2.5 or better.

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 processes to continuously improve the quality, safety, and value of health care systems.

Prerequisites Courses

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>BIO 4</td>
<td>*Human Anatomy</td>
<td>4</td>
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<td>BIO 5</td>
<td>*Human Physiology</td>
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<td>BIO 6</td>
<td>*Microbiology</td>
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<td>ENGL 1A</td>
<td>*College Composition</td>
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<td>ENGL 1AH</td>
<td>*Honors College Composition</td>
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<td>or</td>
<td>*College Composition: Multicultural Emphasis</td>
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<td>or</td>
<td>ENGL 1AMCH</td>
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<td>(MATH 152, or MATH 152A and MATH 152B or MATH 142 or MATH 142A and MATH 142B or equivalent is a prerequisite for CHEM 30A and CHEM 32, which are prerequisites for BIO 5 and BIO 6.)</td>
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It is required that all science prerequisites (BIO 4, BIO 5, and BIO 6) be completed within six years of application to the program. Applicants are permitted to repeat prerequisites for a better grade provided the course was completed more than six years ago.
Math Competency Requirement
The A.S. Degree Mathematics Requirement may be met by successful completion of Intermediate Algebra or equivalent 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.

Health Screening and Clinical Compliance Requirements
To comply with state and local regulations for health care providers, students enrolled in the Cabrillo College Nursing Program are required to meet health screening and clinical compliance according to program guidelines, including vaccination and drug testing requirements, and provide documentation thereof before entering and during the program.

Students are also required to complete fingerprinting, criminal background checks, drug screening, and may be denied access to clinical facilities based on the results.

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 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.

General Education
Nursing students are exempt from the 3 unit Area E requirement (Life-long Understanding & Self-Development) on the 21 unit A.S. general education pattern. As such, this A.S. Degree requires completion of an 18-unit general education pattern (see Cabrillo College Catalog under Associate in Science Degree or the A.S. Degree worksheets available in the Counseling Department or on the Transfer and Articulation website at www.cabrillo.edu.)

Completing a U.S. History or U.S. Political Science course and a Humanities course, in addition to the above Prerequisites and Graduation Requirements, will complete the A.S. Degree general education pattern for nursing students. A Bachelor of Science/Bachelor of Arts Degree from a regionally accredited college or university will satisfy all general education and competency requirements for Cabrillo’s non-transfer A.A. and A.S. degrees, with the exception of program specific graduation requirements.

<table>
<thead>
<tr>
<th>Additional Graduation Requirements</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 1 or COMM 1H or COMM 2</td>
<td>Public Speaking 3</td>
</tr>
<tr>
<td>PSYCH 1 or PSYCH 1H or SOC 2 or SOC 2H or ANTH 2 or ANTH 2H</td>
<td>Honors General Psychology 3</td>
</tr>
<tr>
<td></td>
<td>Contemporary Social Problems 3</td>
</tr>
<tr>
<td></td>
<td>Honors Contemporary Social Problems 3</td>
</tr>
<tr>
<td></td>
<td>Introduction to Anthropology: Cultural 3</td>
</tr>
<tr>
<td></td>
<td>Honors Introduction to Anthropology: Cultural 3</td>
</tr>
</tbody>
</table>

**Please note that the above courses may also be used to satisfy appropriate general education areas.

Core Courses (40 Units)

| N 12 | Maternal Health and Nursing Fundamentals I 8 |
| N 22 | Pediatric and Medical-Surgical Nursing II 9 |
| N 32 | Geriatric and Medical-Surgical Nursing III 10 |
| N 42 | Psychiatric and Nursing Care Management IV 6 |
| N 16 | Basic Nursing Skills and Medications Laboratory I 1.5 |
| N 26 | Advanced Nursing Skills and Medications Laboratory II 1.5 |
| N 17 | Pharmacology A 0.5 |
| N 27 | Pharmacology B 0.5 |
| N 37 | Pharmacology C 0.5 |
| N 47 | Pharmacology D 0.5 |
| N 48 | Clinical Nursing Preceptorship 2 |

Nursing Electives: not required for Nursing Degree

| ALH 101 | A Review of Anatomy and Physiology 2 |
| ALH 110 | Allied Health Foundation Course 1 |
| N 109A | Nursing Skills Practice Lab I 1-2 |
| N 109B | Nursing Skills Practice Lab II 1-2 |
| N 109C | Nursing Skills Practice Lab III 1-3 |
| N 109D | Nursing Skills Practice Lab IV 1-3 |

Total Units 60

*These prerequisites may also be used to satisfy appropriate general education areas.

**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.
Nursing Courses

N 12 Maternal Health and Nursing Fundamentals I
8 units; 4 hours Lecture, 12 hours Laboratory
Prerequisite: Acceptance to the Cabrillo Nursing Program.
Co-requisite: N 16 or equivalent.
Hybrid Requisite: Completion of or concurrent enrollment in N 17 or equivalent.
Repeatability: May be taken a total of 1 time.
Introduces the Neuman Systems Model and the nursing process to establish the knowledge base needed to provide fundamental nursing care to patients and families in obstetric and medical/surgical settings. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

N 16 Basic Nursing Skills and Medications Laboratory I
1.5 units; 1 hour Lecture, 2 hours Laboratory
Prerequisite: Acceptance to the Cabrillo Nursing Program.
Co-requisite: N 12 and N 15.
Hybrid Requisite: Completion of or concurrent enrollment in N 17.
Repeatability: May be taken a total of 1 time.
Provides theory and laboratory application of selected beginning nursing skills.
Transfer Credit: Transfers to CSU.

N 17 Pharmacology A
0.5 unit; 0.5 hour Lecture
Prerequisite: Acceptance to the Cabrillo Nursing Program.
Co-requisite: N 12 and N 15.
Repeatability: May be taken a total of 1 time.
Introduces basic pharmacological principles of nursing care for adults with common health issues. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

N 22 Pediatric and Medical-Surgical Nursing II
9 units; 5 hours Lecture, 12 hours Laboratory
Prerequisite: N 12 or N 14 and N 15, N 16 and N 17.
Hybrid Requisite: Completion of or concurrent enrollment in N 26 and N 27.
Repeatability: May be taken a total of 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. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

N 26 Advanced Nursing Skills and Medications Laboratory II
1.5 units; 1 hour Lecture, 2 hours Laboratory
Prerequisite: N 12 and N 15 and N 16 and N 17.
Co-requisite: N 22 and N 25.
Hybrid Requisite: Completion of or concurrent enrollment in N 27.
Repeatability: May be taken a total of 1 time.
Provides theory with laboratory application of selected advanced nursing skills.
Transfer Credit: Transfers to CSU.

N 27 Pharmacology B
0.5 unit; 0.5 hour Lecture
Prerequisite: N 12 and N 15 and N 16 and N 17.
Repeatability: May be taken a total of 1 time.
Advances theoretical and applied knowledge of drug therapy for patient care. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

N 32 Geriatric and Medical-Surgical Nursing III
10 units; 5 hours Lecture, 15 hours Laboratory
Prerequisite: N 22 or N 24 and N 25, N 26, N 27.
Co-requisite: N 37.
Repeatability: May be taken a total of 1 time.
Applies the Neuman Systems Model and the nursing process and extends the knowledge base needed to provide moderately complex nursing care to patients and families with acute and chronic health problems in geriatric, medical-surgical, and community settings. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

N 37 Pharmacology C
0.5 unit; 0.5 hour Lecture
Prerequisite: N 12, N 17, N 22, N 27.
Co-requisite: N 32.
Repeatability: May be taken a total of 1 time.
Advances theoretical and applied knowledge of drug therapy for patient care. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

N 42 Psychiatric and Nursing Care Management IV
6 units; 3.5 hours Lecture, 9.5 hours Laboratory
Prerequisite: N 32 or N 34 and N 35.
Co-requisite: N 47.
Repeatability: May be taken a total of 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. Applies the nursing process and the Neuman Systems Model to provide comprehensive nursing care to patients with complex acute and chronic health problems, emphasizing the use of leadership skills in managing groups of patients. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

N 47 Pharmacology D
0.5 unit; 0.5 hour Lecture
Prerequisite: N 12, N 17, N 22, N 27, N 37, N 32.
Co-requisite: N 42.
Repeatability: May be taken a total of 1 time.
Applies theoretical knowledge of drug therapy for diverse patient populations in a variety of settings. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.
N 48 Clinical Nursing Preceptorship
2 units; 6 hours Laboratory
Prerequisite: N 42 or N 44 and N 45.
Repeatability: May be taken a total of 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 52 Nurse Residency
8 units; 2 hours Lecture; 20.17 hours Laboratory
Prerequisite: Graduate of an accredited Registered Nursing Program.
Repeatability: May be taken a total of 1 time.
Provides the newly licensed RN 435 hours of structured immersion in
clinical nursing practice in a health care facility with preceptor(s)/men-
tor(s) over five months. Candidates apply for the externship and are
selected in partnership with the facility.
Transfer Credit: Transfers to CSU.

N 109A Nursing Skills Practice Lab I
1 – 2 units; 3 – 6 hours Laboratory
Co-requisite: Current enrollment in the first semester of the Cabrillo
Nursing Program or permission from Nursing Academic Skills Special-
ist.
Repeatability: May be taken a total of 1 time.
Provides resources for independent study of nursing skills-related ac-
tivities to students in the first semester of the Cabrillo Nursing Program.
Transfer Credit: Non-transferable.

N 109B Nursing Skills Practice Lab II
1 – 2 units; 3 – 6 hours Laboratory
Co-requisite: Current enrollment in the second semester of the Cabrillo
Nursing Program or permission from Nursing Academic Skills Special-
ist.
Repeatability: May be taken a total of 1 time.
Provides resources for independent study of nursing skills-related ac-
tivities to students in the second semester of the Cabrillo Nursing Pro-
gram and to re-entry or advanced placement students.
Transfer Credit: Non-transferable.

N 109C Nursing Skills Practice Lab III
1 – 3 units; 3 – 9 hours Laboratory
Co-requisite: Current enrollment in the third semester of the Cabrillo
Nursing Program or permission from the Nursing Academic Skills Spe-
cialist.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

N 109D Nursing Skills Practice Lab IV
1 – 3 units; 3 – 9 hours Laboratory
Co-requisite: Current enrollment in the fourth semester of the Cabrillo
Nursing Program or permission from the Nursing Academic Skills Spe-
cialist.
Repeatability: May be taken a total of 1 time.
Provides resources for independent study and review of nursing
skills-related activities to students in the fourth semester of the Cabrillo
Nursing Program, and to re-entry or advanced placement students.
Transfer Credit: Non-transferable.

NUTRITION
see CULINARY ARTS AND HOSPITALITY
MANAGEMENT page 144

OCEANOGRAPHY
Natural and Applied Sciences Division
Jamie Alonzo, Division Dean
Division Office, Room 701
David Schwartz, Department Chair, (831) 479-6495
Aptos Counseling: (831) 479-6274 for appointment
Watsonville Counseling: (831) 786-4734
Call (831) 479-6328 for more information
http://www.cabrillo.edu/programs

OCEAN 10 Introduction to Oceanography
4 units; 3 hours Lecture, 3 hours Laboratory
Eligibility for MATH 154.
Repeatability: May be taken a total of 1 time.
Introduces some of the more important phenomena in oceanography:
geological, chemical, physical, and biological relationships. May be of-
fered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC.
PHILOSOPHY
Human Arts and Social Sciences Division
Paul Harvell, Division Dean
Division Office, Room 420
Claudia Close, Department Chair, (831) 479-6141
Aptos Counseling: (831) 479-6274 for appointment
Watsonville Counseling: (831) 786-4734 for appointment
Call (831) 479-6297 for more information
http://www.cabrillo.edu/programs

Philosophy A.A.-T Transfer Degree

In ancient Greek, the word “Philosophy” literally means, “love of wisdom.” Philosophy is concerned with our most fundamental assumptions about the 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? As a modern discipline, philosophers are actively engaged in asking questions which include issues regarding the rights of animals, the possibility of artificial consciousness, intellectual property rights, just and equitable treatment of resources, and the nature of our obligations as citizens of nations and of the world. Philosophy is also concerned with the way in which we answer these questions, i.e. with the construction and evaluation of arguments. Philosophy encourages a methodological approach to inquiry, a rigorous examination of evidence, and thoughtful self-reflection regarding one's presuppositions, beliefs, and actions.

The Associate Degrees in Philosophy are designed to prepare students for upper division work in the major. 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. Students who subsequently finish a Bachelor's Degree in Philosophy will have pursued a course of study enabling the development of critical, analytical, and creative skills applicable to graduate work in many professional schools where a basic liberal education is assumed. 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. While some philosophy majors may want to continue a further study in the discipline, others will have developed capacities for written and oral communication, evaluation of assumptions and argument structure, and decision making that enable them to succeed in such professions as law, medicine, business, and public service. As such, training in philosophy is designed to help develop some of the most transferable of all job skills.

Cabrillo offers options for degrees in Philosophy. The first option listed below is the Associate in Arts in Philosophy Studies for Transfer (A.A.-T in Philosophy), which is intended for students who plan to transfer and complete a bachelor's degree in Philosophy or a similar major at a CSU campus. Students completing the Associate in Arts in Philosophy for Transfer are guarantee admission to the CSU system, but not to a particular campus or major. This A.A.-T in Philosophy 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, or a “P” if the course is taken on a “Pass/No Pass” basis.
- Certified completion of the California State University General Education-Breadth pattern (CSU GE Breadth) or the Intersegmental General Education Transfer Curriculum (IGETC) pattern.

Learning Outcomes

The Cabrillo College Core Competencies (with an emphasis in the study of Philosophy):

1. Communication: Reading, Writing, Listening, Speaking, and/or Conversing
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving

CSU or IGETC for CSU General Education Requirements 37-39 Units

Core (6 units)

<table>
<thead>
<tr>
<th>PHILO 10H Honors Ethics</th>
<th>Symbolic Logic</th>
<th>Introduction to Philosophy</th>
<th>Ethics</th>
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<tbody>
<tr>
<td>PHILO 10 or PHILO 12</td>
<td></td>
<td>PHII 4 or PHILO 4</td>
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<td>or</td>
<td></td>
<td>PHII 10 or PHILO 10H</td>
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<td>List A-Select 3 units from:</td>
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<td>Any course not used in Core above</td>
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<td>or</td>
<td></td>
<td>PHILO 6 or PHILO 7</td>
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<td>or</td>
<td></td>
<td>PHILO 9</td>
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<tr>
<td>List B-Select 6 units from:</td>
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<tr>
<td>Any course(s) not used from List A above</td>
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<tr>
<td>or</td>
<td></td>
<td>HIST 4A or HIST 4AH</td>
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<tr>
<td>or</td>
<td></td>
<td>HIST 4B</td>
<td></td>
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<td>or</td>
<td></td>
<td>HIST 4BH</td>
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</tr>
<tr>
<td>or</td>
<td></td>
<td>PHILO 8</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td></td>
<td>PHILO 14</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td></td>
<td>PHILO 16</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td></td>
<td>Survey of Western Civilization to 1648</td>
<td></td>
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<tr>
<td>or</td>
<td></td>
<td>Honors Survey of Western Civilization to 1648</td>
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<tr>
<td>or</td>
<td></td>
<td>Survey of Western Civilization to Late 20th Century</td>
<td>3</td>
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<tr>
<td>or</td>
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<td>Honors Survey of Western Civilization to Late 20th Century</td>
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</tr>
<tr>
<td>or</td>
<td></td>
<td>Philosophy of Religion</td>
<td>3</td>
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<tr>
<td>or</td>
<td></td>
<td>Non-Western Philosophical Traditions</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td>Contemporary Moral Issues</td>
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### List C-Select one course from:

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<tr>
<th>Course Description</th>
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<td>Any course not used from Lists A or B above</td>
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</tr>
<tr>
<td>or ECON 1B Introduction to Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>or PHIL 49 Introduction to Critical Thinking</td>
<td>3</td>
</tr>
<tr>
<td>or Any CSU Area C2 or IGETC Area 3B course</td>
<td>3-5</td>
</tr>
<tr>
<td>or Any lower-division major preparation course articulated to the major at a CSU</td>
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</table>

Note: All courses are also general education courses.

### Total Units

<table>
<thead>
<tr>
<th>Units</th>
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<tbody>
<tr>
<td>60</td>
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</table>

### Philosophy A. A. Degree

#### Learning Outcomes

The Cabrillo College Core Competencies (with an emphasis in the study of Philosophy):

1. Communication: Reading, Writing, Listening, Speaking, and/or Conversing
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving

### 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

<table>
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<tr>
<th>Units</th>
</tr>
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<tbody>
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</tr>
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</table>

#### Core Courses (9-12 units)

**Option A**

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<tbody>
<tr>
<td>PHIL 4</td>
<td>*Introduction to Philosophy</td>
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<tr>
<td>PHIL 10</td>
<td>Ethics</td>
<td>3</td>
</tr>
<tr>
<td>or PHIL 10H</td>
<td>Honors Ethics</td>
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</tr>
<tr>
<td>PHIL 12</td>
<td>Symbolic Logic</td>
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**Option B**

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<th>Course Description</th>
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<tr>
<td>PHIL 6</td>
<td>*History of Philosophy: Ancient and Medieval</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 7</td>
<td>*History of Philosophy: Modern</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 10</td>
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<tr>
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<td>Honors Ethics</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 12</td>
<td>Symbolic Logic</td>
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#### Approved Electives (12-15 Units)

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<tbody>
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<td>*Introduction to Philosophy</td>
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<td>PHIL 6</td>
<td>*History of Philosophy: Ancient and Medieval</td>
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<td>PHIL 7</td>
<td>*History of Philosophy: Modern</td>
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<tr>
<td>PHIL 8</td>
<td>Philosophy of Religion</td>
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<td>PHIL 9</td>
<td>Philosophy of Mind</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 10</td>
<td>*History of Philosophy: Ancient and Medieval</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 12</td>
<td>Symbolic Logic</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 13</td>
<td>Latin American Philosophy</td>
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<tr>
<td>PHIL 14</td>
<td>Non-Western Philosophical Traditions</td>
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</tr>
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<td>PHIL 15</td>
<td>Patterns in Comparative Religions</td>
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<tr>
<td>PHIL 16</td>
<td>Contemporary Moral Issues</td>
<td>3</td>
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<tr>
<td>PHIL 17</td>
<td>Latin American Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 18</td>
<td>Beastly Beauty: The Study of Aesthetics</td>
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<td>PHIL 19</td>
<td>Ethics Bowl Team Competition</td>
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<tr>
<td>or PHIL 19H</td>
<td>Ethics Bowl Team Competition Honors</td>
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<tr>
<td>PHIL 49</td>
<td>Introduction to Critical Thinking</td>
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<tr>
<td>PHIL 19H</td>
<td>Ethics Bowl Team Competition Honors</td>
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#### Electives:

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**Total Units**

<table>
<thead>
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<tbody>
<tr>
<td>60</td>
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</tbody>
</table>

*May be taken as elective credit if not taken as core credit.

### Philosophy Courses

#### PHILO 4 Introduction to Philosophy

3 units; 3 hours Lecture

Repeatability: May be taken a total of 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 focusing on primary texts.

Transfer Credit: Transfers to CSU; UC. C-ID: PHIL 100.

#### PHILO 6 History of Philosophy: Ancient and Medieval

3 units; 3 hours Lecture

Repeatability: May be taken a total of 1 time.

Addresses ancient philosophy with emphasis on the development of Greek philosophy from the Pre-Socratics through Aristotle and may also include Hellenistic, Roman, Medieval, or non-western thinkers using primary texts.

Transfer Credit: Transfers to CSU; UC. C-ID: PHIL 130.

#### PHILO 7 History of Philosophy: Modern

3 units; 3 hours Lecture

Repeatability: May be taken a total of 1 time.

Addresses 16th through 18th century philosophy with emphasis on broad epistemological and/or metaphysical developments of empiricism and rationalism in philosophical thought from Descartes to Kant and may include approximate precursors and successors using primary texts.

Transfer Credit: Transfers to CSU; UC. C-ID: PHIL 140.

#### PHILO 8 Philosophy of Religion

3 units; 3 hours Lecture

Repeatability: May be taken a total of 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  
Repeatability: May be taken a total of 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  
Repeatability: May be taken a total of 1 time.  
Examines problems of good, evil, and various systems of ethics including human conduct in social, economic, and political activities using primary sources from works of Plato, Aristotle, Hume, Kant, and Mill. Topics include ideas of virtue, obligation, egoism, relativism, and foundations of morals. May be offered in a Distance-Learning Format.  
Transfer Credit: Transfers to CSU; UC. C-ID: PHIL 120

PHILO 10H  Honors Ethics  
3 units; 3 hours Lecture  
Prerequisite: Honors Standing.  
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.  
Repeatability: May be taken a total of 1 time.  
Examines problems of good, evil, and various systems of ethics including human conduct in social, economic, and political activities using primary sources from works of Plato, Aristotle, Hume, Kant, and Mill. Topics include ideas of virtue, obligation, egoism, relativism, and foundations of morals.  
Transfer Credit: Transfers to CSU; UC. C-ID: PHIL 120.

PHILO 12  Symbolic Logic  
3 units; 3 hours Lecture  
Repeatability: May be taken a total of 1 time.  
Introduces symbolic logic including the formalization of ordinary language arguments and tests of deductive validity, emphasizing sentential and predicate logic.  
Transfer Credit: Transfers to CSU; UC. C-ID: PHIL 210.

PHILO 14  Non-Western Philosophical Traditions  
3 units; 3 hours Lecture  
Repeatability: May be taken a total of 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  
Repeatability: May be taken a total of 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  Clones, Drones, the 99% and Other Moral Conundrums for the 21st Century  
3 units; 3 hours Lecture  
Repeatability: May be taken a total of 1 time.  
Examines ethical issues of the 21st century, such as genetic engineering, cloning, wealth inequity and famine, cyber privacy, terrorism, gun control, capital punishment, environmental sustainability, animal rights, and issues concerning the LGBTQ community. Readings will be principally from primary texts.  
Transfer Credit: Transfers to CSU; UC.

PHILO 17  Latin American Philosophy  
3 units; 3 hours Lecture  
Repeatability: May be taken a total of 1 time.  
Introduces a body of literature long neglected in mainstream philosophic discourse from the pre-Columbian period continuing to works from the 21st century, including issues of authenticity, identity, social and political justice, liberation theology, and feminism, in a literature that is wonderfully passionate and powerful which emanates from the lived experience of people from Mexico, Central and South America, and the Caribbean. Includes essays from Augusto Salazar Bondy, Sor Juana Inés de la Cruz, José Carlos Mariátegui, Gabriel García Márquez, Octavio Paz, and Leopoldo Zee.  
Transfer Credit: Transfers to CSU; UC.

PHILO 18  Beastly Beauty: The Study of Aesthetics  
3 units; 3 hours Lecture  
Repeatability: May be taken a total of 1 time.  
Explores some of the most controversial works of art throughout history and examines aesthetic issues such as: what makes something art; must art be beautiful or must it spawn an intense feeling, whether pleasing or disturbing; what is an aesthetic experience and why does it mean so much to us? Readings will be principally from primary texts.  
Transfer Credit: Transfers to CSU; UC.

PHILO 19  Ethics Bowl Team Competition  
1 unit; 1 hour Lecture  
Repeatability: May be taken a total of 1 time.  
Prepares students for optional participation in the Association for the Practical and Professional Ethics (APPE) Regional and, if qualifying, National Ethics Bowl Academic Competitions. This exciting competition challenges students to evaluate contemporary case studies provided by the APPE, identify the moral dimensions of each case, and to formulate responses, while anticipating possible questions and objections presented during the competition rounds by opposing teams and judges. Critical, analytical, oral 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 19H  Ethics Bowl Team Competition Honors
1 unit; 1 hour Lecture
Prerequisite: Honors Standing
Repeatability: May be taken a total of 1 time.
Prepares students for optional participation in the Association for Practical and Professional Ethics (APPE) Regional and, if qualifying, National Ethics Bowl Academic Competitions. This exciting competition challenges students to evaluate contemporary case studies provided by the APPE, identify the moral dimensions of each case, and to formulate responses, while anticipating possible questions and objections presented during the competition rounds by opposing teams and judges. Critical, analytical, and oral 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 39A-Z  Philosophy Studies
1 – 3 units; 1 – 3 hours Lecture
Repeatability: May be taken a total of 1 time.
Studies 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 a total of 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. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC.

PHILO 49  Introduction to Critical Thinking
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken a total of 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. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC.

PHILO 49  Introduction to Critical Thinking
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken a total of 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. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC.

PHYSICS
Natural and Applied Sciences Division
Jamie Alonzo, Division Dean
Division Office, Room 701
Joe McCullough, Department Chair, (831) 479-6521
Aptos Counseling: (831) 479-6274 for appointment
Watsonville Counseling: (831) 786-4734
Call (831) 479-6328 for more information
http://www.cabrillo.edu/programs

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.
• Certified completion of the California State University General Education- Breadth pattern (CSU GE Breadth) or the Intersegmental General Education Transfer Curriculum (IGETC) pattern.
Learning Outcomes

The Cabrillo College Core Competencies (with an emphasis in the study of Physics):
1. Communication: Reading, Writing, Listening, Speaking, and/or Conversing
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving

IGETC (for CSU) General Education Requirements  37 - 39

Core Courses  Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 4A</td>
<td>Physics for Scientists and Engineers I</td>
<td>5</td>
</tr>
<tr>
<td>PHYS 4B</td>
<td>*Physics for Scientists and Engineers II</td>
<td>5</td>
</tr>
<tr>
<td>PHYS 4C</td>
<td>**Physics for Scientists and Engineers III</td>
<td>5</td>
</tr>
<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>
</tbody>
</table>

Total Units  60

*Fall only; **Spring only

Physics A. S. Degree

Learning Outcomes

The Cabrillo College Core Competencies (with an emphasis in the study of Physics):
1. Communication: Reading, Writing, Listening, Speaking, and/or Conversing
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving

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. This degree may be completed as a transferable Associate in Science degree with the addition of university admission requirements and increased general education requirements.

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 (39 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</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>PHYS 4A</td>
<td>Physics for Scientists and Engineers I</td>
<td>5</td>
</tr>
<tr>
<td>PHYS 4B</td>
<td>**Physics for Scientists and Engineers II</td>
<td>5</td>
</tr>
<tr>
<td>PHYS 4C</td>
<td>***Physics for Scientists and Engineers III</td>
<td>5</td>
</tr>
<tr>
<td>PHYS 4D</td>
<td>Modern Physics for Scientists and Engineers</td>
<td>5</td>
</tr>
</tbody>
</table>

Total Units  60

*Spring only; **Fall only; ***Fall, even years only

Physics Courses

PHYS 2A  Physics for Life Sciences I

4 units; 3 hours Lecture, 4 hours Laboratory
Prerequisite: MATH 4 or MATH 2 and MATH 3 or equivalent knowledge.
Repeatability: May be taken a total of 1 time.
Covers mechanics, thermodynamics, 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  Physics for Life Sciences II

4 units; 3 hours Lecture, 4 hours Laboratory
Prerequisite: PHYS 2A.
Repeatability: May be taken a total of 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, 4 hours Laboratory
Prerequisite: PHYS 11 or a “B” or better in high school physics and MATH 5A.
Recommended Preparation: Completion of or concurrent enrollment in MATH 5B.
Repeatability: May be taken a total of 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, with limits: PHYS 2A, 2B, and 4A, 4B, 4C combined: maximum credit-one series. Deduct credit for duplication of topics. C-ID: PHYS 205, PHYS 4A + PHYS 4B + PHYS 4C = C-ID PHYS 2005
**PHYS 4B**  
**Physics for Scientists and Engineers II**  
5 units; 4 hours Lecture, 4 hours Laboratory  
Prerequisite: PHYS 4A and MATH 5B.  
Recommended Preparation: Completion of or concurrent enrollment in MATH 5C.  
Repeatability: May be taken a total of 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 with an Honors Contract. Fall semester and alternating summers. 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-4 units. No credit for PHYS 10/10L, 11 or 12 if taken after 2A or 4A.

**PHYS 4C**  
**Physics for Scientists and Engineers III**  
5 units; 4 hours Lecture, 4 hours Laboratory  
Prerequisite: PHYS 4A and MATH 5B.  
Recommended Preparation: Completion of or concurrent enrollment in MATH 5C.  
Repeatability: May be taken a total of 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 with an Honors Contract. Spring semester and alternating summers. 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-4 units. No credit for PHYS 10/10L, 11 or 12 if taken after 2A or 4A.

**PHYS 4D**  
**Modern Physics for Scientists and Engineers**  
3 units; 3 hours Lecture  
Prerequisite: PHYS 4B or PHYS 4C.  
Repeatability: May be taken a total of 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**  
**Conceptual Physics**  
3 units; 3 hours Lecture  
Prerequisite: MATH 154.  
Repeatability: May be taken a total of 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**  
**Conceptual Physics Lab**  
1 unit; 3 hours Laboratory  
Prerequisite: PHYS 10 or concurrent enrollment.  
Repeatability: May be taken a total of 1 time.  
Presents 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**  
**Introduction to Physics for Scientists and Engineers**  
4 units; 3 hours Lecture, 4 hours Laboratory  
Prerequisite: MATH 4 or MATH 2 and MATH 3 or equivalent knowledge.  
Repeatability: May be taken a total of 1 time.  
Prepares primarily science and engineering students for the PHYS 4 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, 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 12**  
**Conceptual Modern Physics**  
3 units; 3 hours Lecture  
Prerequisite: MATH 154.  
Repeatability: May be taken a total of 1 time.  
Covers conceptual topics in modern 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.
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. 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.
3. Completion of a minimum of 18 semester units in the major with a letter grade of “C” or better, or a “P” if the course is taken on a “Pass/No Pass” basis.
4. Certified completion of the California State University General Education-Breadth pattern (CSU GE Breadth) or the Intersegmental General Education Transfer Curriculum (IGETC) pattern.

Learning Outcomes

The Cabrillo College Core Competencies (with an emphasis in the study of Political Science):

1. Communication: Reading, Writing, Listening, Speaking, and/or Conversing
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving

CSU or IGETC for CSU General Education Requirements 37-39 Units

Core Course (3 units)

<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>
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</table>

List A - Take the following 2 courses (6 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>PS 2</td>
<td>Comparative Government</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>PS 3</td>
<td>International Relations</td>
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</table>

List B - Select 2 courses from the following: (6 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ANTHR 2</td>
<td>Introduction to Anthropology: Cultural</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>ANTHR 2H</td>
<td>Honors Introduction to Anthropology: Cultural</td>
</tr>
<tr>
<td>BUS 18</td>
<td>Business Law</td>
<td>3</td>
</tr>
<tr>
<td>ECON 1A</td>
<td>Introduction to Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>ECON 1B</td>
<td>Introduction to Microeconomics</td>
</tr>
<tr>
<td>GEOG 2</td>
<td>Cultural Geography</td>
<td>3</td>
</tr>
<tr>
<td>HIST 2B</td>
<td>World History: 1500 to Present</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>HIST 4AH</td>
<td>Honors World History: 1500 to Late 20th Century</td>
</tr>
<tr>
<td>or</td>
<td>HIST 4B</td>
<td>Survey of Western Civilization to 1648</td>
</tr>
<tr>
<td>HIST 4BH</td>
<td>Honors Survey of Western Civilization to 1648</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>HIST 4BH</td>
<td>Honors Survey of Western Civilization—1648 to Late 20th Century</td>
</tr>
<tr>
<td>PS 5</td>
<td>General Psychology</td>
<td>3</td>
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<tr>
<td>or</td>
<td>PSYCH 1</td>
<td>Honors General Psychology</td>
</tr>
<tr>
<td>or</td>
<td>PSYCH 1H</td>
<td>Introduction to Sociology: Understanding Society</td>
</tr>
<tr>
<td>SOC 1</td>
<td>Social Psychology</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>SOC 1H</td>
<td>Honors Introduction to Sociology: Understanding Society</td>
</tr>
<tr>
<td>or</td>
<td>Any CSU GE Area D course</td>
<td>3</td>
</tr>
</tbody>
</table>

Electives: Electives

Total Units: 60
Political Science A. A. Degree

Learning Outcomes
The Cabrillo College Core Competencies (with an emphasis in the study of Political Science):
1. Communication: Reading, Writing, Listening, Speaking, and/or Conversing
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving

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
Core Courses (12 units)

<table>
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<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>
<tr>
<td>PS 3</td>
<td>International Relations</td>
<td>3</td>
</tr>
<tr>
<td>PS 5</td>
<td>American Political Thought</td>
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Approved Electives (6-9 Units) 60 Units

<table>
<thead>
<tr>
<th>Course</th>
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<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>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 4A</td>
<td>Survey of Western Civilization to 1648</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>HIST 4AH</td>
<td>Honors Survey of Western Civilization to 1648</td>
</tr>
<tr>
<td>HIST 4B</td>
<td>Survey of Western Civilization—1648 to Late 20th Century</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>HIST 4BH</td>
<td>Honors Survey of Western Civilization—1648 to Late 20th Century</td>
</tr>
<tr>
<td>HIST 16C</td>
<td>History of Mexico</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>
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Electives:
(Any Course numbered 1-99) 9 - 12

Total Units 60

Political Science Courses

PS 1  Introduction to Government
3 units; 3 hours Lecture
Repeatability: May be taken a total of 1 time.
Traces the origins and development of the U.S. political system with a focus on the Constitution, current affairs, the media, civil rights, and civil liberties. Other topics include basic concepts from political philosophy, constitutional law, institutions of the federal government (Congress, Presidency, Courts), political parties and elections, federalism, public opinion, interest groups, 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. C-ID: POLS 110

PS 1H  Honors Introduction to Government
3 units; 3 hours Lecture
Prerequisite: Honors standing.
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken a total of 1 time.
Traces the origins and development of the U.S. political system with a focus on the Constitution, current affairs, the media, civil rights, and civil liberties. Other topics include basic concepts from political philosophy, constitutional law, institutions of the federal government (Congress, Presidency, Courts), political parties and elections, federalism, public opinion, interest groups, 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. C-ID: POLS 110

PS 2  Comparative Government
3 units; 3 hours Lecture
Repeatability: May be taken a total of 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.
Transfer Credit: Transfers to CSU; UC. C-ID: POLS 130

Political Science Courses

PS 1  Introduction to Government
3 units; 3 hours Lecture
Repeatability: May be taken a total of 1 time.
Traces the origins and development of the U.S. political system with a focus on the Constitution, current affairs, the media, civil rights, and civil liberties. Other topics include basic concepts from political philosophy, constitutional law, institutions of the federal government (Congress, Presidency, Courts), political parties and elections, federalism, public opinion, interest groups, 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. C-ID: POLS 110

PS 1H  Honors Introduction to Government
3 units; 3 hours Lecture
Prerequisite: Honors standing.
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken a total of 1 time.
Traces the origins and development of the U.S. political system with a focus on the Constitution, current affairs, the media, civil rights, and civil liberties. Other topics include basic concepts from political philosophy, constitutional law, institutions of the federal government (Congress, Presidency, Courts), political parties and elections, federalism, public opinion, interest groups, 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. C-ID: POLS 110

PS 2  Comparative Government
3 units; 3 hours Lecture
Repeatability: May be taken a total of 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.
Transfer Credit: Transfers to CSU; UC. C-ID: POLS 130
PS 3  **International Relations**
3 units; 3 hours Lecture
Repeatability: May be taken a total of 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, C-ID: POLS 140

PS 5  **American Political Thought**
3 units; 3 hours Lecture
Repeatability: May be taken a total of 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 39A-Z  **Special Topics in Political Science**
1 – 3 units; 1 – 3 hours Lecture
Repeatability: May be taken a total of 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
Human Arts and Social Sciences Division
Paul Harvell, Division Dean
Division Office, Room 420
Jennifer Lee, Department Chair, (831) 479-6403
Aptos Counseling: (831) 479-6274 for appointment
Watsonville Counseling: (831) 786-4734
Call (831) 479-6297 for more information
http://www.cabrillo.edu/programs

Psychology A.A.-T Transfer Degree
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 sub-fields 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, or a “P” if the course is taken on a “Pass/ No Pass” basis. Note: this degree requires greater than 18 units in the major for completion.
- Certified completion of the California State University General
Education-Breadth pattern (CSU GE Breadth) or the Intersegmental General Education Transfer Curriculum (IGETC) pattern.

Learning Outcomes
The Cabrillo College Core Competencies (with an emphasis in the study of Psychology):
1. Communication: Reading, Writing, Listening, Speaking, and/or Conversing
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving

CSU or IGETC for CSU General Education Requirements 37-39 Units

Core Courses (10-12 units)
Take one course from: General Psychology, Statistics, and Research Methods
PSYCH 1 General Psychology .............................................. 3
or
PSYCH 1H Honors General Psychology .................................. 3
MATH 12 Elementary Statistics ........................................... 5
or
MATH 12H Honors Elementary Statistics ............................... 5
PSYCH 2A Statistics for Behavioral Sciences .......................... 3
and
PSYCH 2B Research Methods in Psychology .......................... 4

List A - Take Human Anatomy or Biology of People with Lab, General Biology or Intro. to Biological Psychology

Units
BIO 4 Human Anatomy ...................................................... 4
or
BIO 13A Biology of People-Anatomy and Physiology ............ 3
and
BIO 13AL Biology of People-Anatomy and Physiology Lab .............................................. 1

or
BIO 11A General Biology .................................................... 4
or
PSYCH 4 Introduction to Biological Psychology .................. 3

List B - Select one course from the following:

Units
Any course not used from List A above or
PSYCH 6 Introduction to Social Psychology .......................... 3
PSYCH 8 Introduction to Developmental Psychology ............ 3
or
ECE 31 Child Growth and Development ............................. 3
PSYCH 12 Introduction to Cognitive Psychology .................. 3

List C - Select one course from the following:

Units
Any course not used from Lists A or B above or
PSYCH 26 Introduction to Personality Psychology ................ 3
PSYCH 31 Introduction to Abnormal Psychology ................... 3
PSYCH 33 Personal and Social Adjustment ........................... 3
PSYCH 35ABC Death and Dying ........................................... 3
PSYCH 39ABC Relationships: Marriage and the Family .......... 3
SOC 1 Understanding Society .............................................. 3

or
SOC 1H Honors Introduction to Sociology: Understanding Society ............................................. 3
or Any Lower-Division major preparation course articulated to the Similar Major at a CSU

Total Units 60
Note: all courses in the major also meet general ed requirements.

Psychology A. A. Degree

Learning Outcomes
The Cabrillo College Core Competencies (with an emphasis in the study of Psychology):
1. Communication: Reading, Writing, Listening, Speaking, and/or Conversing
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving

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 advice on how 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 advice on transfer to any 4-year institution.

A. A. General Education 30 Units

Core Courses (15-18 Units)

Units
PSYCH 1 General Psychology .............................................. 3
or
PSYCH 1H Honors General Psychology ................................ 3
PSYCH 2A Statistics for Behavioral Sciences ........................ 3
or
MATH 12 Elementary Statistics .......................................... 5
or
MATH 12H Honors Elementary Statistics ............................. 5

Choose three of the following courses:

PSYCH 2B Research Methods in Psychology ........................ 4
PSYCH 4 *Introduction to Biological Psychology .................. 3
PSYCH 6 Introduction to Social Psychology ......................... 3
PSYCH 8 **Introduction to Developmental Psychology .......... 3
PSYCH 12 Introduction to Cognitive Psychology ................... 3
PSYCH 26 Introduction to Personality Psychology ................ 3

Approved Electives (9 Units)

Units
PSYCH 31 Introduction to Abnormal Psychology ................... 3
PSYCH 33 Personal and Social Adjustment ........................... 3
PSYCH 35ABC Death and Dying ......................................... 3
PSYCH 39ABC Relationships: Marriage and the Family ........ 3
Electives: (3-6) 
(Any Course numbered 1-99) ................................................................. 3 - 6

Total Units 60

*Required at San Jose State University
**Required at University of California at Santa Cruz

Psychology Courses

PSYCH 1 General Psychology
3 units; 3 hours Lecture
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken a total of 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

PSYCH 1H Honors General Psychology
3 units; 3 hours Lecture
Prerequisite: Honors Standing.
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken a total of 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

PSYCH 2A Statistics for Behavioral Sciences
3 units; 3 hours Lecture
Prerequisite: MATH 142 or MATH 152 or equivalent skills.
Hybrid Requisite: Completion of or concurrent enrollment in PSYCH 1 or PSYCH 1H or SOC 1 or SOC 1H.
Repeatability: May be taken a total of 1 time.
Examines probability techniques, hypothesis testing, and predictive techniques to facilitate behavioral science research. Topics include: descriptive statistics; probability and sampling distributions; statistical inference and power; correlation and linear 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, with limits: PSYCH 2A, BUS 9 and MATH 12/12H combined: maximum credit: 1 course. C-ID: MATH 110 and SOC 125

PSYCH 2B Research Methods in Psychology
4 units; 3 hours Lecture, 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 a total of 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. C-ID: PSY 200

PSYCH 4 Introduction to Biological Psychology
3 units; 3 hours Lecture
Prerequisite: PSYCH 1 or PSYCH 1H.
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken a total of 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 4L Biological Psychology Laboratory
1 unit; 3 hours Laboratory
Prerequisite: PSYCH 1 or PSYCH 1H.
Hybrid Requisite: Completion of or concurrent enrollment in PSYCH 4.
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken a total of 1 time.
Presents methods and techniques used to investigate sensation, perception, and biological psychology. Topics include the organization of the brain, anatomy and physiology of the neuron, the biochemistry of the synapse, and an examination of sensory systems. Methods include brain dissection procedures, interactive computer simulations, and lab experiments with data collection and analysis. Materials fees may apply.
Transfer Credit: Transfers to CSU; UC.
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 a total of 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. C-ID: PSY 170

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 a total of 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. C-ID: PSY 180

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 a total of 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 20A-Z  Current Topics in Psychology
3 units; 3 hours Lecture
Repeatability: May be taken a total of 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 a total of 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 a total of 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. C-ID: PSY 120

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 a total of 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. C-ID: PSY 115

PSYCH 35ABC  Death and Dying
3 units; 3 hours Lecture
Repeatability: May be taken a total of 1 time.
Examines how individual experience and culture influence grief, care of the dying, funeral rites, ethical decision-making in medicine, and the psychosocial understanding of death through contemporary, historical, cross-cultural, psychological, and interdisciplinary perspectives. Transfer Credit: Transfers to CSU; UC, with conditions: CSU: Students must take 35ABC (3 units) to receive GE credit UC: If taken for 3 units(ABC)

PSYCH 39ABC  Relationships: Marriage and the Family
3 units; 3 hours Lecture
Repeatability: May be taken a total of 1 time.
Studies 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, with conditions: CSU: Students must take 39ABC (3 units) to receive GE credit UC: If taken for 3 units(ABC). C-ID: SOCI 130
PUBLIC SAFETY
Human Arts and Social Sciences Division
Paul Harvell, Division Dean
Division Office, Room 420
Logan Goettsch Fire Technology Department Chair,
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Aptos Counseling: (831) 479-6274 for appointment
Watsonville Counseling: (831) 786-4734
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Associate Degree for Transfer
A Degree with a Guarantee.™

PUBLIC SAFETY
CRIMINAL JUSTICE
Administration of Justice (Criminal Justice) A.S.-T
Transfer Degree
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.

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 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, or a “P” if the course is taken on a “Pass/No Pass” basis.
• Certified completion of the California State University General Education-Breadth pattern (CSU GE Breadth) or the Intersegmental General Education Transfer Curriculum (IGETC) pattern.

Learning Outcomes
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.

CSU or IGETC for CSU General Education Requirements 37-39 Units
Core Courses (6 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>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>List A - Select 2 courses from the following (6-8 units)</td>
<td>Units</td>
<td></td>
</tr>
<tr>
<td>CJ 3</td>
<td>Criminal Evidence</td>
<td>3</td>
</tr>
<tr>
<td>CJ 4</td>
<td>Criminal Courts and Procedures</td>
<td>3</td>
</tr>
<tr>
<td>CJ 5</td>
<td>Community and the Justice System</td>
<td>3</td>
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<td>CJ 6</td>
<td>Criminal Investigation</td>
<td>4</td>
</tr>
<tr>
<td>CJ 7</td>
<td>Juvenile Procedures</td>
<td>3</td>
</tr>
<tr>
<td>CJ 8</td>
<td>Forensic Investigation</td>
<td>4</td>
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<tr>
<td>List B - Select 2 courses from the following (6-10 units)</td>
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<td></td>
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<tr>
<td>Any course listed above</td>
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<tr>
<td>BUS 5</td>
<td>Business Information Systems</td>
<td>4</td>
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<tr>
<td>COMM 1</td>
<td>Public Speaking</td>
<td>3</td>
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<tr>
<td>COMM 1H</td>
<td>Honors Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>CS 1</td>
<td>Technology Tools</td>
<td>2</td>
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<td>CS 1L</td>
<td>Precalculus Algebra</td>
<td>4</td>
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<tr>
<td>MATH 2</td>
<td>Precalculus Trigonometry</td>
<td>3</td>
</tr>
<tr>
<td>MATH 3</td>
<td>Precalculus Algebra and Trigonometry</td>
<td>5</td>
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<tr>
<td>MATH 4</td>
<td>Analytic Geometry and Calculus I</td>
<td>5</td>
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<tr>
<td>MATH 5A</td>
<td>Survey of College Mathematics</td>
<td>3</td>
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<tr>
<td>MATH 10</td>
<td>Finite Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>MATH 13</td>
<td>Symbolic Logic</td>
<td>3</td>
</tr>
<tr>
<td>PHILO 12</td>
<td>Introduction to Government</td>
<td>3</td>
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<tr>
<td>PS 1</td>
<td>Honors Introduction to Government</td>
<td>3</td>
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<tr>
<td>PS 1H</td>
<td>Business Statistics</td>
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<tr>
<td>BUS 9</td>
<td>Statistics</td>
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<tr>
<td>MATH 12</td>
<td>Honors Elementary Statistics</td>
<td>5</td>
</tr>
<tr>
<td>MATH 12H</td>
<td>Statistics for Behavioral Sciences</td>
<td>3</td>
</tr>
<tr>
<td>MATH 2A</td>
<td>General Psychology</td>
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<tr>
<td>PSYCH 1</td>
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<tr>
<td>PSYCH 1H</td>
<td></td>
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</tbody>
</table>
**These courses are not transferable to four-year universities.

**Total Units 60

 ELECTIVES: (Any Course Numbered 1-199) ..............................................9

**Total Units 60

**Criminal Justice A. S. Degree**

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.

**Learning Outcomes**

The Cabrillo College Core Competencies (with an emphasis in the study of Criminal Justice):

1. Communication: Reading, Writing, Listening, Speaking, and/or Conversing
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving

A. S. General Education 21 Units

Core Courses (22 units)

CJ 1 Introduction to Criminal Justice ..................................3
CJ 2 Criminal Law .........................................................3
CJ 3 Criminal Evidence ..................................................3
CJ 4 Criminal Courts and Procedures ................................3
CJ 5 Community and the Justice System ...........................3
CJ 6 Criminal Investigation .............................................4
CJ 7 Criminal Justice Written Communications .................3

Approved Electives (8 Units) ..............................................

CJ 9 Juvenile Procedures ..............................................3
CJ 10 **Forensic Investigation ........................................4
CJ 11 Criminal Identification ...........................................3
CJ 12 Criminal Behavior ................................................3
CJ 13 Narcotics Identification and Enforcement ..................3
CJ 111 **Self Defense for Law Enforcement .......................3
CJ 150 **Career Planning for Public Safety .......................3
CJ 155D **Law Enforcement Skills and Knowledge Modules ....4

Electives (9 Units)

(Any Course Numbered 1-199) ..............................................9

**Total Units 60

PUBLIC SAFETY

**FIRE TECHNOLOGY**

Fire Technology A. A. Degree

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.

**Learning Outcomes**

1. Demonstrate the ability to function independently and as part of an effective management team as appropriate in all situations.
2. Apply effective verbal and written communication skills, critical thinking, and decision-making skills commensurate with a defined level of responsibility.
3. Apply fire service management techniques in the development of policies and procedures, protocols, budgets, and information management in day-to-day operations.
4. Employ principles of strategy and tactics to managing fire operations utilizing proven safety and risk management principles.
5. Interpret ethical and legal issues that impact fire service.
6. Apply a solid foundation of knowledge and skills to assume leadership roles in fire service command and administrative duties.
7. Utilize fire service leadership techniques to manage personnel, train staff, perform strategic planning, organize operations, and coordinate emergency or non-emergency activities.

A.A. General Education 30 Units

Core Courses (18 units)

FT 1 Fire Protection Organization ....................................3
FT 2 Fire Prevention Technology .....................................3
FT 3 Fire Protection Equipment and Systems .......................3
FT 4 Building Construction for Fire Protection ....................3
FT 5 Fire Behavior and Combustion ................................3
FT 6ES Principles of Emergency Services
Safety and Survival ......................................................3

Approved Electives (6 Units) ..............................................

FT 7 Introduction to Hazardous Materials .........................3
FT 8 Wildlands Fire Control ...........................................3
FT 9 Fire Investigation ..................................................3
FT 150 **Career Planning for Public Safety .......................3
or
CJ 150 **Career Planning for Public Safety .......................3
FT 155D **Fire Technology Skills & Knowledge Modules ....4
CJ 7 Criminal Justice Written Communications ................3
COMM 1 Public Speaking ..............................................3

**Total Units 60

**These courses are not transferable to four-year universities.
** These courses are not transferable to four-year universities.

### Fire Technology A.S. Degree

#### Learning Outcomes

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.
6. Explain the operation of fire detection, fire suppression, and alarm systems used to extinguish and provide notification of fire.
Criminal Justice Courses

CJ 1 Introduction to Criminal Justice
3 units; 3 hours Lecture
Repeatability: May be taken a total of 1 time.
Provides an analysis of 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
Repeatability: May be taken a total of 1 time.
Provides an analysis of the doctrines of criminal liability in the United States and the classification of crimes against persons, property, morals, and public welfare. Special emphasis is placed on the classifications of crime, the general elements of crime, the definitions of common and statutory law, and the nature of acceptable evidence. Utilizes case law and case studies to introduce students to criminal law. 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
Repeatability: May be taken a total of 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
Repeatability: May be taken a total of 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 Community and the Justice System
3 units; 3 hours Lecture
Repeatability: May be taken a total of 1 time.
Examines the complex, dynamic relationship between communities and the justice system in addressing crime and conflict with an emphasis on the challenges and prospects of administering justice within a diverse multicultural population. Topics may include the consensus versus conflicting values in culture, religion, and law. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU. C-ID: AJ 160

CJ 6 Criminal Investigation
4 units; 4 hours Lecture
Repeatability: May be taken a total of 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
Repeatability: May be taken a total of 1 time.
Develops students' abilities in note taking, interviewing, information gathering, report writing mechanics and organization, and critical evaluation. Attention will be given to a note-taking system and recording facts in a logical manner. Students will write and analyze police reports to meet the standards of the Criminal Justice System. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

CJ 9 Juvenile Procedures
3 units; 3 hours Lecture
Repeatability: May be taken a total of 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 MATH 154.
Repeatability: May be taken a total of 1 time.
Provides an introduction to the role of forensics in criminal investigations. Examines the methods utilized in forensic analysis of crime scenes, pattern evidence, instruments, firearms question documents, and controlled substances. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU. C-ID: AJ 150

CJ 12  Contemporary Issues in the Justice System
3 units; 3 hours Lecture
Repeatability: May be taken a total of 1 time.
Presents an analysis of contemporary issues that are an 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 14  Criminal Identification
3 units; 3 hours Lecture
Repeatability: May be taken a total of 1 time.
Presents the theory of, and practices in, the science of fingerprints, including classification, filing, comparisons, latent technology, preservation of evidence, court testimony, rolling prints, computers, and the law as it pertains to Criminal Identification. Other aspects of personal identification including DNA, odontology and skeletal identification are also presented.
Transfer Credit: Transfers to CSU.

CJ 19  Introduction to Corrections
3 units; 3 hours Lecture
Repeatability: May be taken a total of 1 time.
Provides a history of and critical analysis of punishment, the various types of punishment, alternatives to punishment, and the impact of punishment on the Criminal Justice System, corrections, a critical examination of the types of correctional institutions and the clients housed in each institution, and an examination of contemporary correctional issues. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU. C-ID: AJ 200

CJ 20  Criminal Behavior
3 units; 3 hours Lecture
Repeatability: May be taken a total of 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
Repeatability: May be taken a total of 1 time.
Studies the identification of narcotics and intermediate types of narcotic investigations; includes licensed personnel, common forgeries of prescriptions, sales, search warrants, and surveillance. Reports and preparation for court. Participation in a mock trial. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

CJ 100  Basic Police Academy
22 – 27 units; 9 – 10 hours Lecture, 39 – 51 hours Laboratory
Prerequisite: POST approved pre-entry English skills and physical abilities assessment examinations provided by the Academy. Penal Code section 13511.5 requires that each applicant for admission to a basic course of training certified by the Commission on Peace Officer Standards and Training that includes the carrying and use of firearms, as prescribed by subdivision (a) of Section 832 and subdivision (a) of Section 832.3, who is not sponsored by a local or other law enforcement agency, or is not a peace officer employed by a state or local agency, department, or district, shall be required to submit written certification from the Department of Justice pursuant to Sections 11122, 11123, and 11124 that the applicant has no criminal history background which would disqualify him or her, pursuant to state or federal law, from owning, possessing, or having under his or her control a firearm. Medical clearance by a licensed physician and a valid driver's license. Repeatable: May be taken a total of 1 time.
Provides all minimum required training mandates governed by the Commission on Peace Officer Standards and Training (POST) for entry level Peace Officers. The course includes fundamental principles, procedures and techniques of law enforcement, including: criminal law, patrol procedures, cultural diversity, investigative procedures, report writing, defensive tactics, firearms, leadership, ethics, community relations, police vehicle operations, traffic enforcement, accident investigation and first aid/CPR. This course is open to those students who meet and satisfy entry requirements including written examination, physical fitness examination, DOJ fingerprint clearance and medical clearance. This course requires significant time commitments and outside course work including uniform preparation, homework assignments and equipment maintenance. (882-1098 hrs)
Transfer Credit: Non-transferable.
CJ 108  Explorer Academy  
1.5 units; 55 hours Lecture, 3.95 hours Laboratory  
Repeatability: May be taken a total of 1 time.  
Provides students with basic knowledge of policing, digital safety, gang awareness, vehicle operations, team building, criminal justice system, crime scene evidence collection, use of force, special operations, crisis negotiations, firearms, and first aid and CPR.  
Transfer Credit: Non-transferable.

CJ 111  Self Defense for Law Enforcement  
3 units; 3 hours Lecture  
Repeatability: May be taken a total of 1 time.  
Develops defensive skills including control holds, takedown, ground defense, weapons retention, legal and ethical use of force principles, and basic self defense concepts.  
Transfer Credit: Non-transferable.

CJ 130  Crisis Intervention Team Training  
.5 units; .34 hours Lecture, 1 hour Laboratory  
Prerequisite: 1. Commission on Police Officer Standards & Training (POST) certified basic law enforcement academy diploma or equivalent as determined by the Dean of Academy Instruction. NOTE: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency.  
2. Prior to beginning this course students must already be familiar with, and be able to demonstrate, all of the skills listed below. These will not be taught in the course; rather, they will be the starting point for advanced officer training that builds upon them. These minimum knowledge and skill levels are regarding:  
- Officer safety  
- Proper and safe tactical movement  
- Proper and safe arrest and control technique  
- Effective verbal communication used in policing  
- Effective non-verbal communication used in policing  
Repeatability: May be taken a total of 1 time.  
Provides students with the proper techniques for safe and secure contact, detainment, and transport of individuals with mental health disorders (Welfare and Institution Code section 5150), developmental disorders, intellectual disorders, and substance use disorders.  
Transfer Credit: Non-transferable.

CJ 131  Principled Policing: Discussion of Procedural Justice Train the Trainer  
.5 units; 44 hours Lecture, 44 hours Laboratory  
Prerequisite: 1. Commission on Police Officer Standards & Training (POST) certified basic law enforcement academy diploma or equivalent as determined by the Dean of Academy Instruction. NOTE: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency.  
2. Prior to beginning this course students must already be familiar with, and be able to demonstrate, all of the skills listed below. These will not be taught in the course; rather, they will be the starting point for advanced officer training that builds upon them. These minimum knowledge and skill levels are regarding:  
- Effective verbal communication used in policing  
- Effective non-verbal communication used in policing  
Repeatability: May be taken a total of 1 time.  
Provides training to develop a spirit of teamwork between law enforcement agencies and community members. This sense of cooperation leads to a reduction in criminal activity and an overall improved quality of life within the community. This course includes facilitation skills training for instructors.  
Transfer Credit: Non-transferable.

CJ 135  Dual Sport Motorcycle Training  
.5 units; 44 hours Lecture, 1.34 hours Laboratory  
Prerequisite: POST Basic Motorcycle Course  
Repeatability: May be taken a total of 1 time.  
Provides instruction to qualify the novice student in the operation of a dual-purpose (street/dirt) motorcycle to meet the minimum standard for enforcement riding. Includes riding on both on and off road with a strong emphasis on officer safety.  
Transfer Credit: Non-transferable.

CJ 150  Career Planning for Public Safety  
3 units; 3 hours Lecture  
Repeatability: May be taken a total of 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.  
Transfer Credit: Non-transferable.

CJ 155D  Law Enforcement Skills and Knowledge Modules  
0.05 – 15 units; 0.15 – 45 hours Laboratory  
Prerequisite: Successful completion of a California P.O.S.T. Cert. Basic Academy.  
Repeatability: May be taken a total of 1 time.  
Teaches new or updates 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. Open entry/Open exit. Four units earned may count toward the associate degree for Criminal Justice.  
Transfer Credit: Non-transferable.
CJ 163  Supervisory Response to Critical Incidents
.5 units; .45 hours Lecture, .89 hours Laboratory
Prerequisite: 1. Commission on Police Officer Standards & Training (POST) certified basic law enforcement academy diploma or equivalent as determined by the Dean of Academy Instruction. NOTE: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency.
2. Prior to beginning this course students must already be familiar with, and be able to demonstrate, all of the skills listed below. These will not be taught in the course; rather, they will be the starting point for advanced officer training that builds upon them. These minimum knowledge and skill levels are regarding:
• Familiarity with incident response
• Familiarity with active shooter incidents
• Familiarity with threat assessment
• Familiarity with the role of law enforcement at a crime scene
• Knowledge of leadership concepts
Repeatability: May be taken a total of 1 time.
Teaches students how to respond to critical incidents while taking on a supervisor role. Topics include decision-making, tactical considerations, command and control, resources, special weapons, and formulating a tactical plan. 
Transfer Credit: Non-transferable.

CJ 170A  Law Enforcement Training - PC 832 Laws of Arrest
2.5 units; 2.5 hours Lecture
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

CJ 175  Basic Public Safety Dispatcher
3 units; 1.45 hours Lecture, 5.21 hours Laboratory
Repeatability: May be taken a total of 1 time.
Provides students with the necessary skills and knowledge to perform the job of a dispatcher. Includes computer systems familiarization, legal updates, and communication techniques.
Transfer Credit: Non-transferable.

CJ 178  Public Safety Dispatch-Update
0.5 – 1.5 units; 0.3 – 0.6 hours Lecture, 0.6 – 4 hours Laboratory
Prerequisite: 1. Commission on Peace Officer Standards and Training (POST) certified Basic Dispatch Academy diploma or equivalent as determined by the Dean of Academy Instruction. NOTE: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency. 2. Prior to beginning this course, students must already be familiar with, and be able to demonstrate all of the skills listed below. These will not be taught in the course; they will be the starting point for advanced dispatcher training that builds upon them. These minimum knowledge and skill levels are regarding: Familiarity with Penal Code Book; Familiarity with Communication Technology; Knowledge of Telephone Procedures; Familiarity with Radio Protocol; Familiarity with Referral Services/Mutual Aid; Familiarity with Workplace Communication; Familiarity with Telecommunications; Familiarity with Professional Demeanor and Ethical Behavior; Knowledge of Missing Persons Procedures; and Knowledge of Domestic Violence Procedures.
Repeatability: May be taken a total of 1 time.
Provides necessary and required continuing professional training for public safety dispatchers as required by The Commission on Peace Officer Standards and Training (POST). Students will learn radio procedures, radio systems, telephone procedures, legal updates, and emergency dispatching techniques.
Transfer Credit: Non-transferable.

CJ 190A-Z  Special Topics in Criminal Justice
0.5 – 12 units; 0.5 – 12 hours Lecture
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

CJ 190PTO  Police Training Officer Basic Course
1 unit; 1 hour Lecture
Prerequisite: Completion of Basic Police Academy and possession of a Basic POST Certificate.
Repeatability: May be taken a total of 1 time.
Provides the Police Training Officer with basic skills designed to train officers recently graduated from the Basic Police Academy.
Transfer Credit: Non-transferable.
Fire Technology Courses

**FT 1**  
**Fire Protection Organization**  
3 units; 3 hours Lecture  
Repeatability: May be taken a total of 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  
Repeatability: May be taken a total of 1 time.  
Explores 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  
Repeatability: May be taken a total of 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  
Repeatability: May be taken a total of 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  
Repeatability: May be taken a total of 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  
Eligibility for MATH 154.  
Repeatability: May be taken a total of 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  
Repeatability: May be taken a total of 1 time.  
Presents emergency handling of toxic and radioactive materials, fuels, oxidizers, explosives, as well as flammability and hazard control for storage and transit. May be offered in a Distance-Learning Format.  
*Transfer Credit: Transfers to CSU.*

**FT 8**  
**Wildlands Fire Control**  
3 units; 3 hours Lecture  
Repeatability: May be taken a total of 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. May be offered in a Distance-Learning Format.  
*Transfer Credit: Transfers to CSU.*

**FT 9**  
**Fire Investigation**  
3 units; 3 hours Lecture  
Recommended Preparation: FT 1.  
Repeatability: May be taken a total of 1 time.  
Explores causes and types of fire, related laws, recognition and preservation of evidence, and introduces witness and suspect interviews as well as arrest, detention, and court procedures. May be offered in a Distance-Learning Format.  
*Transfer Credit: Transfers to CSU.*
FT 130 Fire Company Officer 2A
1 unit; 0.94 hours Lecture, 1.31 hours Laboratory
Prerequisite: 1. State Fire Marshall certified basic firefighting academy diploma or equivalent as determined by the Dean of Academy Instruction. NOTE: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency. 2. Prior to beginning this course students must already be familiar with, and be able to demonstrate all of the skills listed below. These will not be taught in the course; rather, they will be the starting point for advanced officer training that builds upon them. These minimum knowledge and skill levels are regarding: Firefighter safety Pertinent Vehicle, and Health & Safety codes Knowledge of all firefighting tools and equipment, ladders, and hoses including appropriate selection, carry, and use for each type across all types of emergencies Verbal Communications Written communications Familiarity with duties of the Fire Service. Repeatability: May be taken a total of 1 time.
Provides information on the use of human resources to accomplish assignments, evaluating member performance, supervising personnel, and integrating health and safety plans, policies, and procedures into daily activities as well as the emergency scene.
Transfer Credit: Non-transferable.

FT 131 Fire Company Officer 2B
0.5 unit; 0.73 hours Lecture, 0.38 hours Laboratory
Prerequisite: 1. State Fire Marshall certified basic firefighting academy diploma or equivalent as determined by the Dean of Academy Instruction. NOTE: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency. 2. Prior to beginning this course students must already be familiar with, and be able to demonstrate all of the skills listed below. These will not be taught in the course; rather, they will be the starting point for advanced officer training that builds upon them. These minimum knowledge and skill levels are regarding: Firefighter safety Pertinent Vehicle, and Health & Safety codes Knowledge of all firefighting tools and equipment, ladders, and hoses including appropriate selection, carry, and use for each type across all types of emergencies Verbal Communications Written communications California Fire Fighters procedural bill of rights. Repeatability: May be taken a total of 1 time.
Provides information on general administrative functions, and the implementation of department policies and procedures, and addresses conveying the fire department’s role, image, and mission to the public.
Transfer Credit: Non-transferable.

FT 132 Fire Company Officer 2C
1 unit; 0.94 hours Lecture, 1.28 hours Laboratory
Prerequisite: 1. State Fire Marshall certified basic firefighting academy diploma or equivalent as determined by the Dean of Academy Instruction. NOTE: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency. 2. Prior to beginning this course students must already be familiar with, and be able to demonstrate all of the skills listed below. These will not be taught in the course; rather, they will be the starting point for advanced officer training that builds upon them. These minimum knowledge and skill levels are regarding: Firefighter safety Pertinent Vehicle, and Health & Safety codes Familiarity with the Fire Officer certification track Familiarity with the components of the organization Familiarity with the Community Emergency Response Team Role and mission of the department. Repeatability: May be taken a total of 1 time.
Provides instruction in tactics, strategies, and scene management principles involving hazardous materials. The course includes areas of discussion on identification and hazard mitigation, decontamination, protective clothing, environmental concerns, and legal issues.
Transfer Credit: Non-transferable.

FT 133 Fire Company Officer 2D
1 unit; 0.94 hours Lecture, 1.28 hours Laboratory
Prerequisite: 1. State Fire Marshall certified basic firefighting academy diploma or equivalent as determined by the Dean of Academy Instruction. NOTE: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency. 2. Prior to beginning this course students must already be familiar with, and be able to demonstrate all of the skills listed below. These will not be taught in the course; rather, they will be the starting point for advanced officer training that builds upon them. These minimum knowledge and skill levels are regarding: Firefighter safety Pertinent Vehicle, and Health & Safety codes Familiarity with the Fire Officer Certification Process Familiarity National, state and local information resources Familiarity with Fire Behavior. Repeatability: May be taken a total of 1 time.
Provides information on conducting incident size-up, developing and implementing an initial plan of action involving single and multi-unit operations for various types of emergency incidents to mitigate the situation following agency safety procedures, conducting preincident planning, and develop and conduct a post-incident analysis.
Transfer Credit: Non-transferable.
FT 134 Fire Company Officer 2E
1 unit; 0.94 hours Lecture, 1.28 hours Laboratory
Prerequisite: 1. State Fire Marshall certified basic firefighting academy diploma or equivalent as determined by the Dean of Academy Instruction. NOTE: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency. 2. Prior to beginning this course students must already be familiar with, and be able to demonstrate all of the skills listed below. These will not be taught in the course; rather, they will be the starting point for advanced officer training that builds upon them. These minimum knowledge and skill levels are regarding: Firefighter safety Pertinent Vehicle, and Health & Safety codes Familiarity with the Fire Officer Certification Process Familiarity with Fire inspection procedures Familiarity with Fire Behavior Familiarity with Verbal and written communication.
Repeatability: May be taken a total of 1 time.
Provides information on evaluating and reporting incident conditions, analyzing incident needs, developing and implementing a plan of action to deploy incident resources completing all operations to suppress a wildland fire, establishing an incident command post, creating an incident action plan, and completing incident records and reports.
Transfer Credit: Non-transferable.

FT 135 Fire Instructor I
1 unit; 0.8 hour Lecture, 1.45 hours Laboratory
Prerequisite: 1. State Fire Marshall certified basic firefighting academy diploma or equivalent as determined by the Dean of Academy Instruction. NOTE: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency. 2. Prior to beginning this course students must already be familiar with, and be able to demonstrate all of the skills listed below. These will not be taught in the course; rather, they will be the starting point for advanced officer training that builds upon them. These minimum knowledge and skill levels are regarding: Firefighter safety used for lesson plan development Pertinent Vehicle, and Health & Safety codes Familiarity with the Fire Officer Certification Process Familiarity with Verbal and written communication.
Repeatability: May be taken a total of 1 time.
Provides the skills and knowledge needed for the entry level professional instructor to perform his or her duties safely, effectively, and competently. Candidates will be able to develop lesson plans and evaluation instruments, teach and deliver instruction, and evaluate and coach other instructors. The Instructor II will also be able to analyze resources and formulate a program budget.
Transfer Credit: Non-transferable.

FT 136 Fire Instructor II
1 unit; 0.9 hour Lecture, 1.28 hours Laboratory
Prerequisite: 1. State Fire Marshall certified basic firefighting academy diploma or equivalent as determined by the Dean of Academy Instruction. NOTE: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency. 2. Prior to beginning this course students must already be familiar with, and be able to demonstrate all of the skills listed below. These will not be taught in the course; rather, they will be the starting point for advanced officer training that builds upon them. These minimum knowledge and skill levels are regarding: Firefighter safety used for lesson plan development Pertinent Vehicle, and Health & Safety codes Familiarity with the Fire Officer Certification Process Familiarity with Verbal and written communication Familiarity with Fire Fighter Job duties.
Repeatability: May be taken a total of 1 time.
Provides the skills and knowledge needed for the intermediate level professional instructor to perform his or her duties safely, effectively, and competently. Candidates will be able to develop lesson plans and evaluation instruments, teach and deliver instruction, and evaluate and coach other instructors. The Instructor II will also be able to analyze resources and formulate a program budget.
Transfer Credit: Non-transferable.

FT 150 Career Planning for Public Safety
3 units; 3 hours Lecture
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

FT 151 Fire Apparatus Driver 1A
2.5 units; 2.5 hours Lecture
Prerequisite: FT 1 or employment as a paid or volunteer firefighter.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

FT 152 Driver Operator 1B
2.5 units; 2.5 hours Lecture
Prerequisite: FT 151.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.
FT 153  Essentials of Firefighter Safety
3 units; 3 hours Lecture
Repeatability: May be taken a total of 1 time.
Examines the National Fire Protection Agency (NFPA) Standard 1500 including firefighter safety practices and new types of protective clothing and equipment.
Transfer Credit: Non-transferable.

FT 155D  Fire Technology Skills and Knowledge Modules
0.05 – 15 units; 0.15 – 45 hours Laboratory
Prerequisite: Successful completion of or current enrollment in an agency approved Fire Academy.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

FT 160  Fire Management I
2.5 units; 2.5 hours Lecture
Prerequisite: FT 162.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

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.
Repeatability: May be taken a total of 1 time.
Meets California Fire Service Training and Education Systems requirements for Fire Command 1A by emphasizing company officers fire structure attack methods.
Transfer Credit: Non-transferable.

FT 162  Fire Command 1B
2.5 units; 2.5 hours Lecture
Prerequisite: FT 161.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

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.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

FT 164  Fire Prevention 1B
2.5 units; 2.5 hours Lecture
Prerequisite: FT 163.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

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.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

FT 166  Fire Investigation 1B
2.5 units; 2.5 hours Lecture
Prerequisite: FT 165.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

FT 167  Fire Instructor 1A
2.5 units; 2.5 hours Lecture
Prerequisite: FT 161.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.
FT 168  Fire Instructor 1B
2.5 units; 2.5 hours Lecture
Prerequisite: FT 167.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

FT 169  Wildland Fire Management
2.5 units; 2.5 hours Lecture
Prerequisite: FT 189 or Firefighter 1 or equivalent.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

FT 170  CDF Fire Academy Refresher
.5-2 units; .5-1 hours Lecture, .83-3.45 hours Laboratory
Prerequisite: 1. State Fire Marshall certified basic firefighting academy diploma or equivalent as determined by the Dean of Academy Instruction. NOTE: Approval of equivalent training is not a guarantee that state regulatory or licensing agencies will also grant equivalency.
2. Prior to beginning this course students must already be familiar with, and be able to demonstrate, all of the skills listed below. These skills will not be taught in the course, rather, they will be the starting point for advanced officer training that builds upon them. These minimum knowledge and skill levels are regarding: Knowledge of fire service organization, familiarity with fire behavior, familiarity with personal protective equipment, knowledge of firefighter safety, familiarity with fire hoses, tools, and equipment, familiarity with ladders, knowledge of rescue procedures, familiarity with wildland fires, and knowledge of vehicle extrication procedures.
Repeatability: May be taken a total of 1 time.
Provides a refresher for the Basic CDF Firefighter Academy. Returning firefighters must pass the returning firefighter written examination before working on an emergency incident. The subjects are intended to give the Firefighter 1 a basic knowledge which is needed prior to emergency response. Students are required to meet the minimum standard as noted in the behavioral objective for each subject/topic. Candidates for qualification under this course must meet the basic requirements for employment as a CDF Firefighter 1.
Transfer Credit: Non-transferable.

FT 175  Hazardous Materials - First Responder Operations
0.5 unit; 0.5 hour Lecture
Repeatability: May be taken a total of 1 time.
Prepares student to carry out the initial response to a hazardous materials emergency.
Transfer Credit: Non-transferable.

FT 176  Confined Space I
0.25 units; 0.25 hours Lecture
Repeatability: May be taken a total of 1 time.
Provides an overview of OSHA regulations as well as ANSI standards relative to confined space rescue. Pass/No Pass grading only.
Transfer Credit: Non-transferable.

FT 178  CPR for Health Providers
0.5 unit; 0.5 hour Lecture
Repeatability: May be taken a total of 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).
Transfer Credit: Non-transferable.

FT 180  Basic Incident Command System 200
1 unit; 1 hour Lecture
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

FT 181  Intermediate Incident Command System 300
1.5 units; 1.5 hours Lecture
Repeatability: May be taken a total of 1 time.
Prerequisite: FT 180 (State Fire Marshall Course # ISC 200).
Reviews and further explores information designed to meet the needs of command officers managing complex emergency incidents.
Transfer Credit: Non-transferable.
FT 182  Advanced Incident Command System  
1.5 units; 1.5 hours Lecture  
Prerequisite: FT 181 (State Fire Marshall Course # ICS 200).  
Repeatability: May be taken a total of 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.  
Transfer Credit: Non-transferable.

FT 183  Emergency Medical Technician  
7 units; 7 hours Lecture  
Prerequisite: State Requirement: Current BLS/CPR certification, through AHA (American Heart Association) for Health Care Providers.  
Co-requisite: FT 183L.  
Repeatability: May be taken a total of 1 time.  
Meets the State of California requirements for an Emergency Medical Technician (EMT) to render pre-hospital basic life support services, with emphasis on practices and techniques, vital to the interaction of EMT personnel with all levels of emergency medical personnel. State Requirement: Current CPR card for Health Care Provider (infant/child/adult).  
Transfer Credit: Non-transferable.

FT 183L  Emergency Medical Technician Lab  
1 – 3 units; 3 – 9 hours Laboratory  
Repeatability: May be taken a total of 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.  
Transfer Credit: Non-transferable.

FT 184  Emergency Medical Technician Refresher  
1.5 units; 1.5 hours Lecture  
Prerequisite: Possession of a valid EMT certificate or a certificate that has been expired for less than one year.  
Repeatability: May be taken a total of 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.  
Transfer Credit: Non-transferable.

FT 184S  EMT Refresher Skills Proficiency Evaluation  
0.5 – 3 units; 0.5 – 3 hours Lecture  
Prerequisite: Emergency Medical Technician-Basic certification.  
Hybrid Requisite: Completion of or concurrent enrollment in FT 184.  
Repeatability: May be taken a total of 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. Pass/No Pass grading only.  
Transfer Credit: Non-transferable.

FT 185  Fire Fighter I Academy  
14 units; 5.5 hours Lecture, 26.95 hours Laboratory  
Prerequisite: Ability to meet the Academy medical standards as certified by a medical doctor. Pass Pre-Academy physical abilities exam.  
Repeatability: May be taken a total of 1 time.  
Provides instruction on basic fire fighting skills, laws and regulations affecting the fire service, including knowledge and skills to safely perform, under minimal supervision, essential and advanced fire ground tasks, basic rescue, basic fire prevention, fire investigation tasks, and to use, inspect, and maintain fire fighting and rescue equipment. Curriculum is intended to provide the minimum training required by the State of California Fire Marshal in the field of Fire Technology as it relates to Fire Fighters.  
Transfer Credit: Non-transferable.

FT 185AS  Fire Fighter Academy Skills  
.5 – 1 unit; 1.5-3 hours Laboratory  
Prerequisite: State Fire Marshall certified basic firefighting academy diploma or equivalent as determined by the Dean of Academy Instruction. NOTE: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency. Prior to beginning this course students must already be familiar with, and be able to demonstrate all of the skills listed below. These will not be taught in the course; rather, they will be the starting point for advanced officer training that builds upon them. These minimum knowledge and skill levels are regarding: Knowledge of Firefighter Safety, Don and use Self Contained Breathing Apparatus (SCBA) and PASS Device, Knowledge of all Firefighting Personal Protective Equipment, Knowledge of all Firefighting Tools and Equipment, Ladders, and Hoses, Familiarity with Structure Ventilation, Knowledge of Fuel Types, Precautions and Suppression Methods, Familiarity with Rescue Knots  
Repeatability: May be taken a total of 1 time.  
Provides reinforcement, combination, and integration of the skills learned in the basic fire academy in accordance with the State Fire Marshal Firefighter 1 curriculum. Students are provided the opportunity to take the National Capstone tests for International Fire Service Accreditation Congress (IFSAC) and National Board on Fire Services Professional Qualifications (Pro Board) certifications. Successful completion of this course provides the student with the opportunity to apply for employment as a firefighter in the state of California and outside of California with those states that offer reciprocity.  
Transfer Credit: Non-transferable.

FT 187  Fire Academy Prep Course  
1 unit; 33 hours Lecture, 2.35 hours Laboratory  
Repeatability: May be taken a total of 1 time.  
Prepares potential Fire Academy students for success in the Fire Academy. The preparation course will include classroom lecture and hands on training.  
Transfer Credit: Non-transferable.
RADIOLOGIC TECHNOLOGY
Health, Athletics, Wellness, and Kinesiology Division

Cynthia S. T. FitzGerald, PhD
HAWK Division, Associate Dean for Allied Health, SDLC & APE
Aptos Counseling: (831) 786-4734
Watsonville Counseling: (831) 479-6274 for appointment
Call (831) 479-6461 for more information
http://www.cabrillo.edu/academics/radtech/

SELECTION PROCESS
Effective January 1, 2017, the total number of students placed into the program will be comprised of 50% from the current wait list and 50% random selection.

Students currently on the wait list retain their wait list # based on post mark date of application. Students who apply within the application window, May 1 – July 15, are eligible for 50% random selection. Students placed into the program are notified by January each year.

Effective since the application window, May 1, 2017 – July 15, 2017, qualified applicants are no longer placed onto the wait list. If not selected by random selection into the cohort that starts annually each fall semester, students may re-apply the following year.

After all students on the wait list have been offered placement into the program in accordance with the 50% wait list and 50% random selection method, 100% selection will be from annual application by random selection.

Please contact the RT Program Office at (831) 479-6461 to clarify this process and answer any questions.

Radiologic Technology A. S. Degree

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 Radiologic Technology program is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT) and the Radiologic Health Branch of the 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 the 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

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 a separate application in addition to the general college admission. For students not currently enrolled at Cabrillo College, general college application materials are available on the Cabrillo College website.

Radiologic Technology program applications are available on www.cabrillo.edu/academics/radtech (April 15 - July 15). 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 applica-
tion. 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.

**Learning Outcomes**
1. Students will demonstrate good patient communication.
2. Students will be clinically competent.
3. Students will participate in professional development/growth.
4. Students will demonstrate problem solving and critical thinking skills.
5. Graduates will be employed and effective in the community.

**Prerequisites**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 4</td>
<td>Human Anatomy</td>
<td>4</td>
</tr>
<tr>
<td>BIO 5</td>
<td>*Human Physiology</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 10</td>
<td>Introduction to Physics</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 1</td>
<td>General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 1H</td>
<td>Honors General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>MA 70</td>
<td>Medical Terminology</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1A/1AH/1AMC/1AMCH</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

*A course such as CHEM 30A or CHEM 32 is the prerequisite for BIO 5; Intermediate Algebra (MATH 142 or MATH 152) or placement into Intermediate Algebra (MATH 142 or 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. These prerequisites may also be used to satisfy appropriate general education areas.

It is required that prerequisite courses, specifically BIO 4, BIO 5 and MA 70, be completed within six years.

**Elective Not Required for Radiologic Technology Degree**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALH 101*</td>
<td>A Review of Anatomy and Physiology</td>
<td>2</td>
</tr>
</tbody>
</table>

*Usually offered summer session; highly recommended immediately prior to fall program entrance.

**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 Requirement**

To comply with state and local regulations for health care providers, students accepted to the Cabrillo College Radiologic Technology program are required to meet vaccination and drug testing requirements and provide documentation before enrolling in the program. Students are also required to complete criminal background checks and may be required to undergo fingerprinting.

**General Education Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>RT 50A</td>
<td>Patient Care in Imaging Technology</td>
<td>2</td>
</tr>
<tr>
<td>RT 50B</td>
<td>Ethics and Legal Aspects of Radiologic Technology</td>
<td>1</td>
</tr>
<tr>
<td>RT 50L</td>
<td>R.T. Patient Care Laboratory</td>
<td>0.25</td>
</tr>
<tr>
<td>RT 51</td>
<td>Radiographic Positioning I</td>
<td>2</td>
</tr>
<tr>
<td>RT 51L</td>
<td>Positioning Laboratory I</td>
<td>1</td>
</tr>
<tr>
<td>RT 52</td>
<td>Radiation Physics</td>
<td>2</td>
</tr>
<tr>
<td>RT 53AL</td>
<td>Basic Radiologic Technology Laboratory/ Clinic</td>
<td>5.5</td>
</tr>
<tr>
<td>RT 53BL</td>
<td>Radiologic Technology Laboratory/ Clinic II</td>
<td>5.5</td>
</tr>
<tr>
<td>RT 53CL</td>
<td>Radiologic Technology Laboratory/ Clinic III</td>
<td>6</td>
</tr>
<tr>
<td>RT 54</td>
<td>Radiographic Image Assessment</td>
<td>1</td>
</tr>
<tr>
<td>RT 60</td>
<td>Principles of Radiographic Imaging</td>
<td>2</td>
</tr>
<tr>
<td>RT 60L</td>
<td>Applied Principles of Radiographic Imaging Lab</td>
<td>0.5</td>
</tr>
<tr>
<td>RT 61</td>
<td>Radiographic Positioning II</td>
<td>2</td>
</tr>
<tr>
<td>RT 61L</td>
<td>Radiographic Positioning Lab II</td>
<td>1</td>
</tr>
<tr>
<td>RT 62</td>
<td>Principles of Radiation Protection</td>
<td>2</td>
</tr>
<tr>
<td>RT 63AL</td>
<td>Advanced Positioning Lab/Clinic IV</td>
<td>8</td>
</tr>
<tr>
<td>RT 63BL</td>
<td>Advanced Positioning Lab/Clinic V</td>
<td>8</td>
</tr>
<tr>
<td>RT 70</td>
<td>Principles of Fluoroscopy</td>
<td>1</td>
</tr>
<tr>
<td>RT 70L</td>
<td>Applied Principles of Fluoroscopy</td>
<td>0.5</td>
</tr>
<tr>
<td>RT 71</td>
<td>Radiographic Positioning III</td>
<td>2</td>
</tr>
<tr>
<td>RT 71L</td>
<td>Positioning Laboratory III</td>
<td>1</td>
</tr>
<tr>
<td>RT 72</td>
<td>Advanced Diagnostic Imaging Research</td>
<td>2</td>
</tr>
<tr>
<td>RT 73</td>
<td>Medical Imaging Pathology</td>
<td>1</td>
</tr>
<tr>
<td>RT 82</td>
<td>Advanced Diagnostic Imaging</td>
<td>1</td>
</tr>
<tr>
<td>RT 83</td>
<td>Transition to the Professional Role</td>
<td>2</td>
</tr>
<tr>
<td>RT 175</td>
<td>Advanced Patient Care: Venipuncture for Radiographers</td>
<td>0.5</td>
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</tbody>
</table>

**Electives-Mammography**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>RT 185</td>
<td>Principles of Mammography</td>
<td>2</td>
</tr>
<tr>
<td>RT 185C</td>
<td>Principles of Mammography Lab/Clinic</td>
<td>1</td>
</tr>
<tr>
<td>RT 185L</td>
<td>Principles of Mammography Lab</td>
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</tr>
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**Electives-Postprimary Computed Tomography**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>RT 190A</td>
<td>Computed Tomography Physical Principles</td>
<td>3</td>
</tr>
<tr>
<td>RT 190B</td>
<td>Computed Tomography Protocol and Procedures</td>
<td>2</td>
</tr>
<tr>
<td>RT 190C</td>
<td>Applied Computed Tomography Clinical Education</td>
<td>6</td>
</tr>
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</table>

**Elective-Sectional Anatomy**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>RT 189A</td>
<td>Sectional Anatomy</td>
<td>2</td>
</tr>
</tbody>
</table>

**Total Units**

**RT 50A**

Patient Care in Imaging Technology... 2

Ethics and Legal Aspects of Radiologic Technology... 1

R.T. Patient Care Laboratory... 0.25

Radiographic Positioning I... 2

Positioning Laboratory I... 1

Radiation Physics... 2

Basic Radiologic Technology Laboratory/ Clinic... 5.5

Radiologic Technology Laboratory/ Clinic II... 5.5

Radiologic Technology Laboratory/ Clinic III... 6

Radiographic Image Assessment... 1

Principles of Radiographic Imaging... 2

Applied Principles of Radiographic Imaging Lab... 0.5

Radiographic Positioning II... 2

Radiographic Positioning Lab II... 1

Principles of Radiation Protection... 2

Advanced Positioning Lab/Clinic IV... 8

Advanced Positioning Lab/Clinic V... 8

Principles of Fluoroscopy... 1

Applied Principles of Fluoroscopy... 0.5

Radiographic Positioning III... 2

Positioning Laboratory III... 1

Advanced Diagnostic Imaging Research... 2

Medical Imaging Pathology... 1

Advanced Diagnostic Imaging... 1

Transition to the Professional Role... 2

Advanced Patient Care: Venipuncture for Radiographers... 0.5

Principles of Mammography... 2

Principles of Mammography Lab/Clinic... 1

Principles of Mammography Lab... 1

Computed Tomography Physical Principles... 3

Computed Tomography Protocol and Procedures... 2

Applied Computed Tomography Clinical Education... 6

Sectional Anatomy... 2

81.75
Computed Tomography Skills Certificate

Learning Outcome
1. Demonstrate a mastery of advanced level medical imaging in Computed Tomography. Graduates will have averaged a score of 85% per cohort on the advanced level ARRT examination in Computed Tomography.

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>RT 189A</td>
<td>Sectional Anatomy</td>
<td>2</td>
</tr>
<tr>
<td>RT 190A</td>
<td>Computed Tomography Physical Principles</td>
<td>3</td>
</tr>
<tr>
<td>RT 190B</td>
<td>Computed Tomography Protocol and Procedures</td>
<td>2</td>
</tr>
<tr>
<td>RT 190C</td>
<td>Applied Computed Tomography Clinical Education</td>
<td>6</td>
</tr>
</tbody>
</table>

Total Units 13

Radiologic Technology Venipuncture Skills Certificate

Learning Outcome
Solve novel venipuncture problems with a variety of venous structures as presented with varying body types.

Required Course (.5 Units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>RT 175</td>
<td>Advanced Patient Care: Venipuncture for Radiographers</td>
<td>0.5</td>
</tr>
</tbody>
</table>

Total Units .5

Radiologic Technology Courses

RT 50A Patient Care in Imaging Technology
2 units; 2 hours Lecture
Prerequisite: Acceptance to the Cabrillo College Radiologic Technology Program.
Repeatability: May be taken a total of 1 time.
Provides the concepts of optimal patient care including: physical assistance, routine and emergency patient care, infection control, pharmacology, and bloodborne pathogen protection.
Transfer Credit: Transfers to CSU.

RT 50B Ethics and Legal Aspects of Radiologic Technology
1 unit; 1 hour Lecture
Prerequisite: Acceptance to the Cabrillo College Radiologic Technology Program.
Repeatability: May be taken a total of 1 time.
Examines ethical standards and legalities pertaining to the field of medical imaging. Assesses culture, age, and stage of illness when providing optimal patient care.
Transfer Credit: Transfers to CSU.

RT 50L R.T. Patient Care Laboratory
0.25 units; 0.75 hours Laboratory
Prerequisite: Acceptance to the Cabrillo College Radiologic Technology Program.
Co-requisite: RT 50A.
Repeatability: May be taken a total of 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.
Co-requisite: RT 51L.
Repeatability: May be taken a total of 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.
Co-requisite: RT 51.
Repeatability: May be taken a total of 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 a total of 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 53AL  Basic Radiologic Technology Laboratory/Clinic I
5.5 units; 16.5 hours Laboratory
Prerequisite: Selection to the Cabrillo College Radiologic Technology Program.
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 1 time.
Applies classroom theory (RT 50A, 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 53BL  Radiologic Technology Lab/ Clinic II
5.5 units; 16.5 hours Laboratory
Prerequisite: RT 53AL.
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 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 53CL  Radiologic Technology Laboratory/ Clinic III
6 units; 18 hours Laboratory
Prerequisite: RT 53BL.
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 1 time.
Reviews clinical application of classroom theory (RT 51 and 61) and laboratory practice (RT 51L and 61L) in clinical education facilities 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 54  Radiographic Image Assessment
1 unit; 1 hour Lecture
Prerequisite: RT 60.
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 1 time.
Provides a foundation for evaluating all radiographic images by outlining technical and digital imaging concepts.
Transfer Credit: Transfers to CSU.

RT 60  Principles of Radiographic Imaging
2 units; 2 hours Lecture
Prerequisite: RT 52
Co-requisite: RT 60L.
Repeatability: May be taken a total of 1 time.
Presents 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
Co-requisite: RT 60.
Repeatability: May be taken a total of 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.
Co-requisite: RT 61L.
Repeatability: May be taken a total of 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.
Co-requisite: RT 61.
Repeatability: May be taken a total of 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 a total of 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 63AL Advanced Positioning Lab/Clinic IV
8 units; 24 hours Laboratory
Prerequisite: RT 53CL.
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 1 time.
Applies classroom and lab theory from previous didactic courses to clinical education under indirect/direct supervision, with participation in all facets of the radiologic technologist job performance.
Transfer Credit: Transfers to CSU.

RT 63BL Advanced Positioning Lab/Clinic V
8 units; 24 hours Laboratory
Prerequisite: RT 63AL.
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 1 time.
Applies classroom and laboratory theory from previous didactic courses to clinical education under indirect/direct supervision, with participation in all aspects of radiologic imaging.
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.
Co-requisite: RT 70L.
Repeatability: May be taken a total of 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.
Co-requisite: RT 70.
Repeatability: May be taken a total of 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.
Co-requisite: RT 71L.
Repeatability: May be taken a total of 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.
Co-requisite: RT 71.
Repeatability: May be taken a total of 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 a total of 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. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

RT 73 Medical Imaging Pathology
1 unit; 1 hour Lecture
Prerequisite: RT 61.
Repeatability: May be taken a total of 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 a total of 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 a total of 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, 0.5 hour Laboratory
Prerequisite: RT 61 or ARRT or CRT license and CPR/Healthcare provider certification.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

RT 184AZ  Special Topics in Radiologic Technology
1 – 3 units; 3 – 9 hours Laboratory
Prerequisite: Selection to the Radiologic Technology Program.
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 1 time.
Special topics in the radiologic sciences. Topics may include lab and/or field work, learning lab or directed reading. Enrichment program in the radiologic sciences. Course is tailored to individual needs and interests as enrichment or expansion of subject area material. May be taken a total of four times for different topics.
Transfer Credit: Non-transferable.

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.
Co-requisite: RT 185L.
Repeatability: May be taken a total of 1 time.
Studies the theory and practice of mammographic positioning, quality assurance/quality control, and imaging the anatomy and pathophysiology of the breast. Prepares the student in part for the state and national certification exams in mammography.
Transfer Credit: Non-transferable.

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.
Co-requisite: RT 185 and RT 185L.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

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.
Co-requisite: RT 185.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.
RT 189A  **Sectional Anatomy**
2 unit; 2 hour Lecture
Prerequisite: BIO 4.
Repeatability: May be taken a total of 1 time.
Teaches sectional human anatomy for health care professionals. Emphasis on transverse, coronal, and sagittal planes as related to sonography, computed tomography and magnetic resonance imaging. May be offered in a Distance-Learning Format.
*Transfer Credit: Non-transferable.*

RT 190A  **Computed Tomography Physical Principles**
3 unit; 3 hours Lecture
Prerequisite: RT 189A and Current ARRT Certification in Radiography
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 1 time.
Provides a basic understanding of the physics underlying the properties and production of computed radiography imaging. Fundamentals include instrumentation and imaging, planar and volumetric postprocessing, radiation protection principles and standards, data acquisition and archiving. Patient factors related to other elements affecting image quality will be explained, as well as artifact production and reduction and image communication. May be offered in a Distance-Learning Format.
*Transfer Credit: Non-transferable.*

RT 190B  **Computed Tomography Protocol and Procedures**
2 unit; 2 hours Lecture
Prerequisite: RT 190A
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 1 time.
Studies the theory and practice of Computed Tomography (CT), patient care, contrast media administration, radiation safety and dose, protocol and procedures. Prepares the student in part for the national certification examination (ARRT) in Computed Tomography. May be offered in a Distance-Learning Format.
*Transfer Credit: Non-transferable.*

RT 190C  **Applied Computed Tomography Clinical Education**
6 units; 17.78 hours Laboratory
Prerequisite: RT 190B and must hold current ARRT certification in Radiography. Must complete Clinical Compliance requirements, including a background check and drug testing to be placed in a Cabrillo College affiliated clinic/hospital.
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 1 time.
Provides clinical application of classroom theory (RT190A and RT190B) in clinical education facilities by arrangement and/or assignment. The student works toward completing the American Registry of Radiologic Technologist (ARRT) clinical experience requirements to obtain eligibility for application for certification and registration in Computed Tomography. May be offered in a Distance-Learning Format.
*Transfer Credit: Non-transferable.*
READ 158RM  Reading Math
0.5 – 1 units; 1.5 – 3 hours Laboratory
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

READ 205  Introduction to College Reading
3 units; 3 hours Lecture
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

READ 206  Basic Individualized Reading Lab
1 unit; 3 hours Laboratory
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

READ 206SL  ESL Individualized Reading
1 unit; 3 hours Laboratory
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

READ 210A  Basic Vocabulary
1 unit; 3 hours Laboratory
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

READ 210B  Intermediate Vocabulary
1 unit; 3 hours Laboratory
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

READ 255  Basic Reading
3 units; 3 hours Lecture
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

READ 502  Supervised Tutoring in Reading
0 units; 5 hours Laboratory
Supervised individual and group drop-in tutoring assistance in a variety of areas, ranging from basic skills and vocabulary work, to content-area reading, critical and analytical reading and vocational reading. May be taken for support in other courses, including basic skills, vocational, and transferable courses.

REAL ESTATE

James Weckler, Division Dean
Division Office, Room 301
Mo Hassan, Department Chair, (831) 477-3201
Aptos Counseling: (831) 479-6274 for appointment
Watsonville Counseling: (831) 786-4734
Call (831) 479-6478 for more information
http://www.cabrillo.edu/programs

RE 150  Real Estate Principles
3 units; 3 hours Lecture
Repeatability: May be taken a total of 1 time.
Teaches the fundamentals of the real estate field, practice and procedures in California. Subjects covered will be real estate licensing procedures, use of real estate forms, best practices in selling and buying real estate, and general aspects of real property ownership in California. Satisfies Salesperson’s license requirement and elective credit for Broker’s license. May be offered in a Distance-Learning Format.
Transfer Credit: Non-transferable.

RE 152  Real Estate Practice
3 units; 3 hours Lecture
Prerequisite: RE 150 or equivalent skills.
Repeatability: May be taken a total of 1 time.
Surveys the practical, day-to-day aspects of California real estate practice: clients and customers, pricing property, California regulations and Federal Fair Housing laws, listing and purchase agreements, offers and counteroffers, guiding the transaction through closing. A Calif. Dept. of Real Estate required course for Salesperson or Broker license. May be offered in a Distance-Learning Format.
Transfer Credit: Non-transferable.

RE 153  Real Estate Finance
3 units; 3 hours Lecture
Prerequisite: RE 150 or equivalent skills.
Repeatability: May be taken a total of 1 time.
Presents practical applied study and analysis of money markets, interest rates and real estate financing. Actual case illustrations demonstrate lending policies, problems, and rules involved in financing real property, focusing mainly on residential property.
Transfer Credit: Non-transferable.
SOCIOLOGY
Human Arts and Social Sciences Division
Paul Harvell, Division Dean
Division Office, Room 420
M. Teresa Macedo, Department Chair, (831) 477-3254
Aptos Counseling: (831) 479-6274 for appointment
Watsonville Counseling: (831) 786-4734
Call (831) 479-6297 for more information
http://www.cabrillo.edu/programs

Sociology A.A.-T Transfer Degree
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 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, nonprofit 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, or a “P” if the course is taken on a “pass/no pass” basis.
- 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.

Learning Outcome
The Cabrillo College Core Competencies (with an emphasis in the study of Sociology):
1. Communication: Reading, Writing, Listening, Speaking, and/or Conversing
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving

CSU or IGETC for CSU General Education Requirements 37-39 Units

Core Course (3 Units)
SOC 1 Introduction to Sociology:
Understanding Society ............................................. 3
or
SOC 1H Honors Introduction to Sociology:
Understanding Society ............................................. 3

Additional Core Courses (6-8 Units)
Select two courses from the following:

List A - Select two courses from the following: (6 Units) 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

List B - Select one course from the following (3 Units) Units
Any course not used from List A above

ANTHR 2 Introduction to Anthropology: Cultural ............................................. 3
or
ANTHR 2H Honors Introduction to Anthropology: Cultural ............................................. 3
ANTHR 3 Introduction to Anthropology: Archaeology ............................................. 3
BUS 18 Business Law ............................................. 4
GEOG 2 Cultural Geography ............................................. 3
or
PSYCH 1 General Psychology ............................................. 3
PSYCH 1H Honors General Psychology ............................................. 3
SOC 8 Introduction to Latino/a Studies ............................................. 3
SOC 9 Globalization and Society ............................................. 3
SOC 10 Popular Culture ............................................. 3

Any lower-division major preparation course articulated to the Similar Major at a CSU. All courses except BUS 18 also meet general education requirements.
Sociology | 319

Electives: (1-5 Units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>Any course number 1-99</td>
<td>1 - 5</td>
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</tbody>
</table>

**Total Units**

60

**Sociology A. A. Degree**

**Learning Outcomes**

The Cabrillo College Core Competencies (with an emphasis in the study of Sociology):

1. Communication: Reading, Writing, Listening, Speaking, and/or Conversing
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving

**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 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**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>SOC 1</td>
<td>Introduction to Sociology: Understanding Society</td>
</tr>
<tr>
<td>or</td>
<td>Honors Introduction to Sociology: Understanding Society</td>
</tr>
<tr>
<td>SOC 2</td>
<td>Contemporary Social Problems</td>
</tr>
<tr>
<td>or</td>
<td>Honors Contemporary Social Problems</td>
</tr>
<tr>
<td>SOC 3</td>
<td>Race, Ethnicity, and Society</td>
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<tr>
<td>SOC 9</td>
<td>Globalization and Society</td>
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**Highly Recommended:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>MATH 12</td>
<td>*Elementary Statistics</td>
</tr>
<tr>
<td>or</td>
<td>Honors Elementary Statistics</td>
</tr>
</tbody>
</table>

**Approved Sociology Electives (6-9 Units)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>SOC 5</td>
<td>Gender and Society</td>
</tr>
<tr>
<td>SOC 8</td>
<td>Introduction to Latino/a Studies</td>
</tr>
<tr>
<td>SOC 10</td>
<td>Popular Culture</td>
</tr>
<tr>
<td>SOC 11</td>
<td>Families and Society</td>
</tr>
<tr>
<td>SOC 12</td>
<td>Crime and Society</td>
</tr>
</tbody>
</table>

**Electives (Transfer): (9-12 Units)**

(Any Course Numbered 1-99) | 9 - 12 |

**Total Units**

60

*A transferable math course is required for transfer to CSU or UC. A statistics course is highly recommended.*

**Sociology Courses**

**SOC 1**

Introduction to Sociology: Understanding Society

3 units; 3 hours Lecture

Repeatability: May be taken a total of 1 time.

Introduces core principles used to understand the ways in which social structures, institutions, and processes affect human experiences, perceptions, and behaviors. Topics include culture, families, education, health, economy, and politics. Emphasizes race, class, and gender as integral dimensions of social life and inequality. May be offered in a Distance-Learning Format.

_Transfer Credit:_ Transfers to CSU; UC. C-ID: SOCI 110

**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 a total of 1 time.

Introduces core principles used to understand the ways in which social structures, institutions, and processes affect human experiences, perceptions, and behaviors. Topics include culture, families, education, health, economy, and politics. Emphasizes race, class, and gender as integral dimensions of social life and inequality. 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

Repeatability: May be taken a total of 1 time.

Examines the social, economic, and political causes and consequence of major social problems. Analyzes the ways in which social problems are constructed, defined, and addressed. Topics include income and wealth disparities, structural poverty, institutional racism, gender discrimination, families, health care, education, and the criminal justice system. 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 a total of 1 time.

Examines the social, economic, and political causes and consequence of major social problems. Analyzes the ways in which social problems are constructed, defined, and addressed. Topics include income and wealth disparities, structural poverty, institutional racism, gender discrimination, families, health care, education, and the criminal justice system. 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  Race, Ethnicity, and Society
3 units; 3 hours Lecture
Repeatability: May be taken a total of 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 intersectionality. Topics include immigration patterns, comparative studies of ethnic groups, and cultural representations of racial groups.
Transfer Credit: Transfers to CSU; UC. C-ID: SOCI 150

SOC 5  Gender and Society
3 units; 3 hours Lecture
Repeatability: May be taken a total of 1 time.
Analyzes the social construction of masculinities and femininities historically and cross-culturally. Focuses on individual, interactional, and institutional dimensions of gender. Emphasizes how intersections 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 Latino/a Studies
3 units; 3 hours Lecture
Repeatability: May be taken a total of 1 time.
Examines the contemporary experiences of Latinx/a groups in the U.S., focusing on regional, national, and transnational processes. Surveys the conditions of a wide range of U.S. Latinos/as, 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  Globalization and Society
3 units; 3 hours Lecture
Repeatability: May be taken a total of 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 its impact on the regions, nations, organizations, communities, households, and individuals within it. Topics may include colonialism, globalization, poverty, health, technological and environmental change, and social movements. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC.

SOC 10  Popular Culture
3 units; 3 hours Lecture
Repeatability: May be taken a total of 1 time.
Focuses on the social, historical, economic, and political contexts in which popular culture is produced and consumed. Introduces classic and contemporary theories used to analyze advertising, books, magazines, music, news, television, film, and social media. Analyzes the ways in which ideologies circulated through popular culture reflect and reproduce social divisions. Topics may include youth and media, race and representation, consumer culture, media legislation, and technological innovation.
Transfer Credit: Transfers to CSU; UC.

SOC 11  Families and Society
3 units; 3 hours Lecture
Repeatability: May be taken a total of 1 time.
Examines social, cultural, economic, and political factors that influence relationships, marriage, and family systems. Situates private experiences of intimate relationships in a broader public context through the examination of empirical studies conducted by sociologists using varied theoretical perspectives. Topics include socio-historical development of families, gender roles and expectations, public policies, violence and abuse, and diversity of families and family forms. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC. C-ID: SOC130

SOC 12  Crime and Society
3 units; 3 hours Lecture
Repeatability: May be taken a total of 1 time.
Critically analyzes crime, criminal behavior, and the criminal justice system in a social, political, and historical context. Focuses on the intersections between constructions of crime, structural inequalities, and criminal justice policy. Topics may include criminalization, lawmaking, policing, sentencing, imprisonment, prisoner reentry, social policy, and social movements.
Transfer Credit: Transfers to CSU; UC. C-ID: SOCI 160

SOC 39A-Z  Sociological Studies
1 – 3 units; 1 – 3 hours Lecture
Repeatability: May be taken a total of 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.
SPANISH
Business, English, and Language Arts Division
James Weckler, Division Dean
Division Office, Room 301
Francisco Iñiguez, Department Chair, (831) 479-6407
Aptos Counseling: (831) 479-6274 for appointment
Watsonville Counseling: (831) 786-4734
Call (831) 479-6478 for more information
http://www.cabrillo.edu/programs

Spanish A.A.-T Transfer Degree

The Spanish department offers courses that serve as a basis for broad liberal education, for advanced degrees and further study in languages, English literature, as preparation for the teaching credential, and as supplementary preparation for many professional fields. 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.

Cabrillo offers options for Associate in Arts Degrees in Spanish. The first option listed below is the Associate in Arts in Spanish for Transfer (A.A.-T in Spanish), which is intended for students who plan to transfer and complete a bachelor’s degree in Spanish or a similar major at a CSU campus. Students completing the Associate in Arts in Spanish for Transfer are guaranteed admission to the CSU system, but not to a particular campus or major. This A.A.-T in Spanish 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:

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.
3. Completion of a minimum of 18 semester units in the major with a letter grade of “C” or better, or a “P” if the course is taken on a “Pass/No Pass” basis.
4. Certified completion of the California State University General Education-Breadth pattern (CSU GE Breadth) or the Intersegmental General Education Transfer Curriculum (IGETC) pattern.

Learning Outcomes

The Cabrillo College Core Competencies (with an emphasis in the study of Spanish):
1. Communication: Reading, Writing, Listening, Speaking, and/or Conversing
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving

CSU or IGETC for CSU General Education Requirements 37-39 Units

Core Courses (18-20 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPAN 1</td>
<td>Elementary Spanish I</td>
<td>5</td>
</tr>
<tr>
<td>SPAN 2</td>
<td>Intermediate Spanish II</td>
<td>5</td>
</tr>
<tr>
<td>SPAN 3</td>
<td>Intermediate Spanish I</td>
<td>5</td>
</tr>
<tr>
<td>or SPAN 16</td>
<td>Elementary Spanish for Spanish Speakers I</td>
<td>4</td>
</tr>
<tr>
<td>or SPAN 4</td>
<td>Intermediate Spanish II</td>
<td>5</td>
</tr>
<tr>
<td>or SPAN 17</td>
<td>Elementary Spanish for Spanish Speakers II</td>
<td>4</td>
</tr>
</tbody>
</table>

*Students who begin beyond the level of SPAN 1 will substitute units from List A courses to achieve the overall unit requirement for the major (minimum 18 units). Requirements for the overall degree MUST include at least one course from List A.

List A-Select one course from the list below. Students are required to take at least one course from this list. Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPAN 5A</td>
<td>Advanced Grammar and Composition</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 10A</td>
<td>Intermediate Spanish Conversation</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 10B</td>
<td>Advanced Spanish Conversation</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 25</td>
<td>Spanish through Literature-Spain</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 26</td>
<td>Spanish through Literature-Latin America</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 30B</td>
<td>Mexican Civilization and Culture</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 21A</td>
<td>Chicano History to 1865</td>
<td>3</td>
</tr>
<tr>
<td>HIST 21AH</td>
<td>Honors Chicano History to 1865</td>
<td>3</td>
</tr>
<tr>
<td>HIST 21B</td>
<td>Chicano History since 1865</td>
<td>3</td>
</tr>
<tr>
<td>HIST 21BH</td>
<td>Honors Chicano History since 1865</td>
<td>3</td>
</tr>
</tbody>
</table>

Any lower-division major preparation course articulated to the major at a CSU or

Other courses approved for substitution for Core or List A:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPAN 6A</td>
<td>Spanish Through Film - Latin America</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 6B</td>
<td>Spanish Through Film - Spain</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units 60

Note: All courses are also (CSU) general education courses.

Spanish A.A. Degree

Learning Outcome

The Cabrillo College Core Competencies (with an emphasis in the study of Spanish):
1. Communication: Reading, Writing, Listening, Speaking, and/or Conversing
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving
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 - 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 (8-20 Units)*</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPAN 1 Elementary Spanish I</td>
<td>5</td>
</tr>
<tr>
<td>SPAN 2 Elementary Spanish II</td>
<td>5</td>
</tr>
<tr>
<td>SPAN 3 Intermediate Spanish I</td>
<td>5</td>
</tr>
<tr>
<td>or SPAN 16 Elementary Spanish for Spanish Speakers I</td>
<td>4</td>
</tr>
<tr>
<td>SPAN 4 Intermediate Spanish II</td>
<td>5</td>
</tr>
<tr>
<td>or SPAN 17 Elementary Spanish for Spanish Speakers II</td>
<td>4</td>
</tr>
</tbody>
</table>

*Students who begin beyond the level of SPAN 1 will substitute units from the Approved Electives list to achieve the overall unit requirement for the major (minimum 18 units).

### Approved Electives (0-10 Units)

<table>
<thead>
<tr>
<th>Electives: (10-12 Units)</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPAN 5A Advanced Grammar and Composition</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 6A Spanish Through Film - Latin America</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 6B Spanish Through Film - Spain</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 10A Intermediate Spanish Conversation</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 10B Advanced Spanish Conversation</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 25 Spanish through Literature - Spain</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 26 Spanish through Literature - Latin America</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 30B Mexican Civilization and Culture</td>
<td>3</td>
</tr>
</tbody>
</table>

### Electives: (10-12 Units)

<table>
<thead>
<tr>
<th>Electives</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Any Course Numbered 1-99)</td>
<td>10-12</td>
</tr>
</tbody>
</table>

Total Units 60

### Spanish Courses

#### SPAN 1 Elementary Spanish I

5 units; 4 hours Lecture, 3 hours Laboratory
Repeatability: May be taken a total of 1 time.
Develops elementary speaking, listening comprehension, reading, and writing skills within a cultural context. Spanish is the primary language of instruction. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC. C-ID: SPAN 100

#### SPAN 2 Elementary Spanish II

5 units; 4 hours Lecture, 3 hours Laboratory
Prerequisite: SPAN 1 or two years of high school Spanish, or equivalent skills.
Repeatability: May be taken a total of 1 time.
Practices and builds upon elementary speaking, listening comprehension, reading, and writing skills within a cultural context. Spanish is the primary language of instruction. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC. C-ID: SPAN 110

#### SPAN 3 Intermediate Spanish I

5 units; 4 hours Lecture, 3 hours Laboratory
Prerequisite: SPAN 2 or equivalent skills.
Repeatability: May be taken a total of 1 time.
Further develops elementary language skills, reviews and expands grammar and vocabulary usage in speaking, listening, and writing, within a cultural context. Spanish is the primary language of instruction. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC, with limits: SPAN 3, 4, combined with SPAN 16 & 17: maximum credit-1 series. SPAN 3 & 16 combined: maximum credit-1 course. C-ID: SPAN 200

#### SPAN 4 Intermediate Spanish II

5 units; 4 hours Lecture, 3 hours Laboratory
Prerequisite: SPAN 3 or equivalent skills.
Repeatability: May be taken a total of 1 time.
Develops and refines language skills in order to express more complex ideas and increases awareness of cultural norms, values, and events. Spanish is the primary language of instruction. Facilitates language acquisition through listening, speaking, reading, and writing within a cultural context. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC, with limits: SPAN 3, 4, combined with SPAN 16 & 17: maximum credit-1 series. SPAN 4 & 17 combined: maximum credit-1 course. C-ID: SPAN 210

#### SPAN 5A Advanced Grammar and Composition

3 units; 3 hours Lecture
Prerequisite: SPAN 4 or equivalent skills.
Repeatability: May be taken a total of 1 time.
Examines challenging components of Spanish grammar through exercises, extensive writing practice, reading, and oral presentations.
Transfer Credit: Transfers to CSU; UC.
SPAN 6A  Spanish Through Film - Latin America
3 units; 3 hours Lecture
Prerequisite: SPAN 4 or equivalent skills.
Repeatability: May be taken a total of 1 time.
Surveys contemporary Latin American society and improves written and spoken Spanish through discussion and written analysis of selected Latin American films.
Transfer Credit: Transfers to CSU; UC.

SPAN 6B  Spanish Through Film - Spain
3 units; 3 hours Lecture
Prerequisite: SPAN 4 or equivalent skills.
Repeatability: May be taken a total of 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.
Repeatability: May be taken a total of 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.
Repeatability: May be taken a total of 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 audio-visual sources.
Transfer Credit: Transfers to CSU; UC.

SPAN 16  Elementary Spanish for Spanish Speakers I
4 units; 4 hours Lecture
Prerequisite: SPAN 2 or equivalent skills
Repeatability: May be taken a total of 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 3 & 4: maximum credit-1 series. SPAN 3 & 16 combined: maximum credit-1 course. C-ID: SPAN 220

SPAN 17  Elementary Spanish for Spanish Speakers II
4 units; 4 hours Lecture
Prerequisite: SPAN 16 or equivalent skills.
Repeatability: May be taken a total of 1 time.
Further develops correct Spanish usage through speaking, reading, and writing. Spanish is the primary language of instruction. Reading selections reflect the diversity of Hispanic culture.
Transfer Credit: Transfers to CSU; UC, with limits: SPAN 16 & 17 combined with SPAN 3 & 4: maximum credit-1 series. SPAN 4 & 17 combined: maximum credit-1 course. C-ID: SPAN 230

SPAN 25  Spanish Through Literature-Spain
3 units; 3 hours Lecture
Prerequisite: SPAN 4 or equivalent skills.
Repeatability: May be taken a total of 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. Students enrolled in the Honors Transfer Program may count this course towards the Honors Scholar designation with an Honors Contract.
Transfer Credit: Transfers to CSU; UC.

SPAN 26  Spanish Through Literature-Latin America
3 units; 3 hours Lecture
Prerequisite: SPAN 4 or equivalent skills.
Repeatability: May be taken a total of 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. Students enrolled in the Honors Transfer Program may count this course towards the Honors Scholar designation with an Honors Contract.
Transfer Credit: Transfers to CSU; UC.

SPAN 30B  Mexican Civilization and Culture
3 units; 3 hours Lecture
Prerequisite: SPAN 4 or equivalent skills.
Repeatability: May be taken a total of 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.

SPAN 70A  Spanish Language and Culture Abroad
1–5 units; 1–5 hours Lecture
Repeatability: May be taken a total of 1 time.
An intensive language and culture program stressing language development and the study of local culture in a Spanish speaking country.
Transfer Credit: Transfers to CSU.
STROKE AND DISABILITY LEARNING CENTER

SPECIAL EDUCATION
Health, Athletics, Wellness and Kinesiology Division
Cynthia S. T. FitzGerald, PhD
HAWK Division, Associate Dean for Allied Health,
Stroke Center & Adaptive Physical Education
Room HW 1102
Call (831) 477-3300 for more information
http://www.cabrillo.edu/programs

SPED 210  Adaptive Speech and Language Skills
0.5 – 5 units; 0.5 – 5 hours Lecture or 1.5 – 15 hours Laboratory
Prerequisite: Must be able to follow group instruction and be independent in self-management (or provide care attendant).
Recommended Preparation: Eligibility for Accessibility Support Center (ASC) services; SPED 215.
Repeatability: May be taken a total of 1 time.
Provides communication skills and strategies for students with physical/neurological limitations and other Accessibility Support Center documented disabilities. Emphasis on practical application of skills in language, cognition, and social dynamics. Offered in the Stroke and Disability Learning Center.
Transfer Credit: Non-transferable.

SPED 215  Orientation to Stroke and Disability Learning Center
0.5 – 1 units; 0.5 – 1 hours Lecture or 1.5 – 3 hours Laboratory
Prerequisite: Must be able to follow group instruction and be independent in self-management (or provide care attendant).
Recommended Preparation: Eligibility for Accessibility Support Center (ASC) services. Repeatability: May be taken a total of 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 in the Stroke and Disability Learning Center.
Transfer Credit: Non-transferable.

SPED 216  Exploring Abilities
0.5 – 5 units; 0.5 – 5 hours Lecture or 1.5 – 15 hours Laboratory
Prerequisite: Must be able to follow group instruction and be independent in self-management (or provide care attendant).
Recommended Preparation: Eligibility for Accessibility Support Center (ASC) services; SPED 215.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.

SPED 220A-Z  Special Topics in Adaptation and Abilities
0.5 – 5 units; 0.5 – 5 hours Lecture or 1.5 – 15 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 Accessibility Support Center (ASC) services; SPED 215.
Repeatability: May be taken a total of 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.
Transfer Credit: Non-transferable.
SUBJECT/SPECIAL STUDIES

SUBJECT 80S Special Studies I
1 – 4 units; 0 hour Lecture
Prerequisite: Nomination by a faculty member.
Repeatability: May be taken a total of 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 special studies form, the course syllabus and work completed for this course. Credit for this course is contingent upon a review of the course outline and other materials by the UC transfer campus.

SUBJECT 80SB Special Studies II
1 – 4 units; 0 hour Lecture
Prerequisite: Nomination by a faculty member.
Repeatability: May be taken a total of 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 special studies form, the course syllabus and work completed for this course. Credit for this course is contingent upon a review of the course outline and other materials by the UC transfer campus.

SUBJECT 80SC Special Studies III
1 – 4 units; 0 hour Lecture
Prerequisite: Nomination by a faculty member.
Repeatability: May be taken a total of 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 special studies form, the course syllabus and work completed for this course. Credit for this course is contingent upon a review of the course outline and other materials by the UC transfer campus.

SUBJECT 180S Special Studies
1 – 4 units; 1 hour Lecture
Prerequisite: Nomination by a faculty member.
Repeatability: May be taken a total of 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 designed by department.
Transfer Credit: Non-transferable.

THEATRE ARTS
Visual, Applied, and Performing Arts Division
John Graulty, Division Dean Division Office, Room VAPA1007
Sarah Albertson, Co-Department Chair, (831) 477-3257
Skip Epperson, Co-Department Chair, (831) 479-6168
Aptos Counseling: (831) 479-6274 for appointment
Watsonville Counseling: (831) 786-4734
Call (831) 479-6464 for more information
http://www.cabrillo.edu/programs

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, or a “P” if the course is taken on a “Pass/No Pass” basis.
• Certified completion of the California State University General Education-Breadth pattern (CSU GE Breadth) or the Intersegmental General Education Transfer Curriculum (IGETC) pattern.

Learning Outcomes
The Cabrillo College Core Competencies (with an emphasis in the study of Theatre Arts):
1. Communication: Reading, Writing, Listening, Speaking, and/or Conversing
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving
Theatre Arts A. A. Degree

Learning Outcomes
Note: all courses also meet general education requirements.
The Cabrillo College Core Competencies (with an emphasis in the study of Theatre Arts):
1. Communication: Reading, Writing, Listening, Speaking, and/or Conversing
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving

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 30 Units
Core Courses Select 18 units from:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>TA 7</td>
<td>3</td>
</tr>
<tr>
<td>TA 10A</td>
<td>3</td>
</tr>
<tr>
<td>TA 10B</td>
<td>3</td>
</tr>
<tr>
<td>TA 11</td>
<td>3</td>
</tr>
<tr>
<td>TA 14</td>
<td>3</td>
</tr>
<tr>
<td>TA 27</td>
<td>1-3</td>
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<tr>
<td>TA 28</td>
<td>1-3</td>
</tr>
<tr>
<td>TA 31</td>
<td>3</td>
</tr>
</tbody>
</table>

Note: if TA 27 is taken, only 3 units may be counted towards the 18 required units.

Approved Electives Select 8 units from:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>TA 8</td>
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</tr>
<tr>
<td>TA 9</td>
<td>3</td>
</tr>
<tr>
<td>TA 12A</td>
<td>3</td>
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<td>TA 13A</td>
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<td>TA 13B</td>
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<td>TA 15</td>
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<td>TA 35</td>
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<td>TA 73</td>
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<tr>
<td>TA 74</td>
<td>3</td>
</tr>
<tr>
<td>TA 75</td>
<td>1-3</td>
</tr>
<tr>
<td>DANCE 2A</td>
<td>0.5-3</td>
</tr>
</tbody>
</table>

Note: if a repeatable course is taken, only 3 units for each repeatable course will be counted towards the 8 required units.

Electives (Transfer): (Any Course Numbered 1-99) 4 units

Total Units 60
Creative Careers - Discovering Self-Directed Pathways Skills Certificate

Learning Outcome
Research and analyze ways to create impact and develop a livelihood in all visual, applied, and performing arts disciplines by identifying your WHY and focusing on unique, self-directed, non-traditional, and entrepreneurial pathways.

Required
AH 79  Creative Careers - Discovering Self Directed Pathways..................................................3
or AP 79  Creative Careers - Discovering Self Directed Pathways..................................................3
or ART 79  Creative Careers - Discovering Self Directed Pathways..................................................3
or DANCE 79  Creative Careers - Discovering Self Directed Pathways..................................................3
or DM 79  Creative Careers - Discovering Self Directed Pathways..................................................3
or MUS 79  Creative Careers - Discovering Self Directed Pathways..................................................3
or TA 79  Creative Careers - Discovering Self Directed Pathways..................................................3
and
BUS 88  *Starting and Operating a New Small Business .3
*Special VAPA only cohort offering, typically offered every spring term

Any AH/AP/ART/DANCE/DM/MUS/TA course 1-99........................................1-4

Total Units 7-10

Musical Theatre Skills Certificate

Learning Outcomes
1. Assess, demonstrate and synthesize basic musical, dramatic, physical, and analytic skills necessary for performance in musical theatre.

Required Courses
TA 10A  Basic Acting Techniques..................................................3
TA 10B  Intermediate Acting..................................................3
TA 12A  Movement for Actors..................................................3
or
DANCE 2A  Introduction to Dance I..................................................3
TA 73  Voice and the Musical Stage..................................................3
TA 74  Acting for Musical Theatre..................................................3
TA 29  Rehearsal and Performance..................................................2
or
TA 75  Musical Theatre Production..................................................2

Total Units 17

Technical Theatre Skills Certificate

Learning Outcomes
1. Assess, demonstrate, and synthesize techniques and skills necessary for work in technical theatre.

Required Courses
<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>TA 28</td>
<td>Backstage Theatre..................................................3</td>
</tr>
<tr>
<td>TA 31</td>
<td>Introduction to Design in the Theatre..........................3</td>
</tr>
<tr>
<td>TA 33</td>
<td>Makeup and Masks..................................................3</td>
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<td>or</td>
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<tr>
<td>TA 34</td>
<td>Costume Workshop..................................................3</td>
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<tr>
<td>TA 35</td>
<td>Scene Painting..................................................3</td>
</tr>
<tr>
<td>TA 27</td>
<td>Theatre Production Workshop........................................3</td>
</tr>
</tbody>
</table>

Total Units 15

Cinema Arts, Moving Image Arts, and Video Production Skills Certificates

(see Digital Media and Art Photography Department page for details)

The following Theatre Arts classes are included in the Cinema Arts, Moving Image Arts, and Video Production Skills Certificates:

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>TA 17</td>
<td>Introduction to Directing........................................3</td>
</tr>
<tr>
<td>TA 21</td>
<td>Acting for the Camera............................................3</td>
</tr>
</tbody>
</table>
Theatre Arts Courses

TA 7 Introduction to Acting
3 units; 3 hours Lecture
Repeatability: May be taken a total of 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. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC.

TA 8 World Theatre History
3 units; 3 hours Lecture, 1 hour Laboratory
Repeatability: May be taken a total of 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. Materials fee may apply. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC. C-ID: THTR 113

TA 9 Appreciation of Theatre Arts
3 units; 3 hours Lecture, 1 hour Laboratory
Repeatability: May be taken a total of 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. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC. C-ID: THTR 111

TA 10A Basic Acting Techniques
3 units; 3 hours Lecture, 1 hour Laboratory
Repeatability: May be taken a total of 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. Materials fee may apply. Some of the class hours for this course may be scheduled as To Be Arranged (TBA).
Transfer Credit: Transfers to CSU; UC. C-ID: THTR 151

TA 10B Intermediate Acting
3 units; 3 hours Lecture, 1 hour Laboratory
Prerequisite: TA 10A or equivalent skills.
Repeatability: May be taken a total of 1 time.
Explores at 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. Materials fee may apply. Some of the class hours for this course may be scheduled as To Be Arranged (TBA).
Transfer Credit: Transfers to CSU; UC. C-ID: THTR 152

TA 10C Advanced Acting
3 units; 3 hours Lecture, 1 hour Laboratory
Prerequisite: TA 10B or equivalent skills.
Repeatability: May be taken a total of 1 time.
Presents intensive script analysis, scene study (period and modern) and critiques using in-class rehearsals and performances of student selected scenes building upon skills learned in TA 10B. Materials fee may apply. Some of the class hours for this course may be scheduled as To Be Arranged (TBA).
Transfer Credit: Transfers to CSU; UC.

TA 11 Voice and Diction for the Theatre
3 units; 3 hours Lecture
Repeatability: May be taken a total of 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. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC.

TA 12A Movement for Actors
3 units; 3 hours Lecture
Hybrid Requisite: Completion of or concurrent enrollment in TA 250.
Repeatability: May be taken a total of 1 time.
Presents basic instruction in stage movement including dance, mime, stage combat, t’ai chi, creative movement, and contact scene study. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC.

TA 13A Beginning Improvisation
3 units; 3 hours Lecture, 1 hour Laboratory
Repeatability: May be taken a total of 1 time.
Exploration of theater games and improvisation to develop group consciousness and trust with ensemble-building techniques incorporating: movement, imagination, enthusiasm, curiosity, collaboration techniques, and appropriate risk-taking. For actors and those working in careers requiring negotiation and collaboration, emphasizing skills in listening, speaking and observing. Covers the creation of nonscripted life stories and situations. Materials fee may apply. Some of the class hours for this course may be scheduled as To Be Arranged (TBA).
Transfer Credit: Transfers to CSU; UC.
TA 13B  Intermediate Improvisation
3 units; 3 hours Lecture, 1 hour Laboratory
Recommended Preparation: TA 13A.
Repeatability: May be taken a total of 1 time.
Explores improvisation at an intermediate level deepening the expe-
rience with a wider variety of improvisational techniques and their
applications. Materials fee may apply. Some of the class hours for this
course may be scheduled as To Be Arranged (TBA).
Transfer Credit: Transfers to CSU; UC.

TA 14  The Art of Play Reading
3 units; 3 hours Lecture
Hybrid Requisite: Completion of or concurrent enrollment in TA 250.
Repeatability: May be taken a total of 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 perspec-
tive. Emphasis on reading plays and scripts understanding their unique
structure, character and author voices, historical and societal context.
Materials fee may apply. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC. C-ID: THTR 114

TA 15  Styles of Acting/Playing Shakespeare
3 units; 3 hours Lecture
Recommended Preparation: TA 10B or equivalent skills.
Repeatability: May be taken a total of 1 time.
Presents an intensive analysis of Shakespearean texts, in relation to
verse verse, designed to sensitize and aid the actor in developing a
rehearsal process. Performance of monologues and scenes. Materials
fee may apply.
Transfer Credit: Transfers to CSU; UC.

TA 17  Introduction to Directing
3 units; 3 hours Lecture
Repeatability: May be taken a total of 1 time.
Presents principles of basic directing for theatre and film, the history
of the director in theatre and film, scene analysis and interpretation,
and the dramatic image as created in theatre and film. Materials fee
may apply.
Transfer Credit: Transfers to CSU; UC.

TA 21  Acting for the Camera
3 units; 3 hours Lecture
Hybrid Requisite: Completion of or concurrent enrollment in TA 250.
Recommended Preparation: TA 7 or TA 10A or equivalent skills.
Repeatability: May be taken a total of 1 time.
Explores the actor’s relationship to the screen image by performing
and evaluating on camera interviews, auditions, improvisations, and
monologue/scene study. Materials fee may apply.
Transfer Credit: Transfers to CSU.

TA 27  Theatre Production Workshop
1 – 3 units; 3 – 9 hours Laboratory
Repeatability: May be taken a total of 4 times.
Presents hands-on backstage preparation for the current TA 29 or TA75
stage production, including practical problem solving in scenery con-
struction, lighting, props, costumes, make-up, sound, management,
and public relations.
Transfer Credit: Transfers to CSU; UC. C-ID: THTR 192

TA 28  Backstage Theatre
3 units; 2 hours Lecture, 2 hours Laboratory
Repeatability: May be taken a total of 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. Materials
fee may apply.
Transfer Credit: Transfers to CSU; UC. C-ID: THTR 171

TA 29  Rehearsal and Performance
1 – 3 units; 3 – 9 hours Laboratory
Co-requisite: TA 27 or TA 28 or TA 33 or TA 34 or TA 35.
Repeatability: May be taken a total of 4 times.
Presents the rehearsal and performance of the Theatre Arts stage pro-
duction 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 30  Introduction to Stage Lighting
3 units; 2 hours Lecture, 3 hours Laboratory
Repeatability: May be taken a total of 1 time.
Presents the study and execution of stage lighting with emphasis on
equipment, control, color, and their relationship to design.
Transfer Credit: Transfers to CSU; UC. C-ID: THTR 173

TA 31  Introduction to Design in the Theatre
3 units; 2 hours Lecture, 3 hours Laboratory
Repeatability: May be taken a total of 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. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC. C-ID: THTR 172
TA 33  Makeup and Masks  
3 units; 2 hours Lecture, 4 hours Laboratory  
Repeatability: May be taken a total of 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. Materials fee may apply.  
Transfer Credit: Transfers to CSU; UC. C-ID: THTR 175

TA 34  Costume Workshop  
3 units; 3 hours Lecture, 1 hour Laboratory  
Repeatability: May be taken a total of 1 time.  
Presents an introduction to costume theory, design, and construction for the theatre. Materials fee may apply.  
Transfer Credit: Transfers to CSU; UC. C-ID: THTR 174

TA 35  Scene Painting  
3 units; 2 hours Lecture, 3 hours Laboratory  
Repeatability: May be taken a total of 1 time.  
Presents basic scene painting techniques and materials, including illusionistic and faux painting methods, realization of color elevations, and painting furniture and props. Materials fee may apply.  
Transfer Credit: Transfers to CSU; UC.

TA 36  Introduction to Stage Management  
3 units; 2 hours Lecture, 3 hours Laboratory  
Repeatability: May be taken a total of 1 time.  
Examines stage management principles for theatre, dance, musical theatre, and concert productions, analyzing the dynamic role of the stage manager in the performing arts management team.  
Transfer Credit: Transfers to CSU; UC.

TA 45  Improvisation Workshop  
1 unit; 1 hour Lecture, .5 hours Laboratory  
Repeatability: May be taken a total of 1 time.  
Explores theater games and improvisation to develop group consciousness and trust with ensemble-building techniques incorporating: movement, imagination, collaboration techniques, and appropriate risk-taking. Builds life-skills in listening, speaking, and observing. Useful for those pursuing careers requiring negotiation and collaboration. Covers the creation of non-scripted stories and situations.  
Transfer Credit: Transfers to CSU; UC, pending review.

TA 73  Voice and the Musical Stage  
3 units; 3 hours Lecture  
Repeatability: May be taken a total of 1 time.  
Explores voice technique for the Broadway musical including: character, legit, 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  
Repeatability: May be taken a total of 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. Materials fee may apply.  
Transfer Credit: Transfers to CSU; UC.

TA 75  Musical Theatre Production  
1 – 3 units; 3 – 9 hours Laboratory  
Prerequisite: By audition  
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. Some of the class hours for this course may be scheduled a To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering. Materials fee may apply.  
Transfer Credit: Transfers to CSU; UC.

TA 79  Creative Careers-Discovering Self-Directed Pathways  
3 units; 3 hours Lecture, 1 hour Laboratory  
Repeatability: May be taken a total of 1 time.  
Investigates creative career opportunities in all visual, applied, and performing arts disciplines, with a focus on unique, self-directed, non-traditional, and entrepreneurial pathways and the academic and life choices necessary to realize such opportunities. May be offered in a Distance-Learning Format. Materials fee may apply. AH 79, ART 79, AP 79, DANCE 79, DM 79, MUS 79, and TA 79 are cross listed courses. Students may enroll in only one course for credit.  
Transfer Credit: Transfers to CSU.
TA 85A-Z  Studies in Theatre Arts
1 – 3 units; 1 hour Lecture, 0.5 hour Laboratory
Repeatability: May be taken a total of 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. Materials fee may apply.
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 122  Theatrical Touring Ensemble
1.5 – 3.5 units; 1 hour Lecture, 2 hours Laboratory
Repeatability: May be taken a total of 4 times.
Performing in a variety of venues as a theatrical production ensemble of actors and technicians. Includes developing scripts, auditioning for parts and positions, rehearsing, and performing. Materials fee may apply.
Transfer Credit: Non-transferable.

TA 250  Theatre Arts Laboratory
Repeatability: May be taken a total of 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. Materials fee may apply.
Transfer Credit: Non-transferable.

TA 527  Theatre Production Workshop for Older Adults
0 units; 3 – 9 hours Laboratory
Repeatability: May be taken a total of 20 times.
Provides older adults opportunities for personal growth and development through participation in a theater production, hands-on backstage preparation for the current TA 29 or TA 75 stage production, including practical problem solving in scenery construction, lighting, props, costumes, make-up, sound, management, and public relations. Also provides older adults community involvement, skills for mental and physical well-being through work on a theater production, and ongoing training toward maintaining economic self-sufficiency for those older adults already working in theater.

TA 529  Rehearsal and Performance for Older Adults
0 units; 3 hours Laboratory
Repeatability: May be taken a total of 20 times.
Prepares older adults for performance in a Theatre Arts stage production. Must audition and be cast in the current Theatre Arts production.

TA 575  Musical Theatre Production for Older Adults
0 units; 3 – 9 hours Laboratory
Prerequisite: By audition.
Repeatability: May be taken a total of 20 times.
Rehearse and perform musical and musical comedy literature with concentration on all aspects of the production related to professional performance; designed for older adults; audition is required for enrollment.
WELDING
Natural and Applied Sciences Division
Jamie Alonzo, Division Dean
Division Office, Room 701
Gary Marcoccia, Department Chair, (831) 479-5705
Aptos Counseling: (831) 479-6274 for appointment
Watsonville Counseling: (831) 786-4734
Call (831) 479-6328 for more information
http://www.cabrillo.edu/programs

Welding
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.

NOTES:
(a) A mandatory materials fee of $45.00 for each course taken will be added to your course registration fee.
(b) Students who want to take additional courses to enhance their knowledge are encouraged to select from the following electives: ETECH 24, ETECH 41, ETECH 130, W 155.
(c) Due to safety concerns caused by the use of potentially hazardous equipment, students must be 18 years of age or older to enroll in any Welding course.

Basic Welding Skills Certificate
Learning Outcomes
1. In SMAW, perform and pass a standardized AWS qualification test on 3/8” steel plate in the flat and 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 sheet metal 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 sheet metal components and transitions.

Core Courses Semester #1:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>W 151</td>
<td>TIG Welding</td>
</tr>
<tr>
<td>W 156</td>
<td>Introduction to Sheet Metal Fabrication</td>
</tr>
</tbody>
</table>

Semester #2:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>W 150</td>
<td>Arc Welding</td>
</tr>
<tr>
<td>W 152</td>
<td>*Advanced Welding</td>
</tr>
</tbody>
</table>

Total Units: 8

*Requires W 150 or 151 (or demonstrated skill equivalence)

Advanced Welding Skills Certificate
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:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>W 152A</td>
<td>**Advanced Arc Welding</td>
</tr>
<tr>
<td>W 154</td>
<td>**Pipe Welding</td>
</tr>
</tbody>
</table>

Semester #2:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>W 158</td>
<td>*Welding Fabrication</td>
</tr>
</tbody>
</table>

Semester #3:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>W 152B</td>
<td>**Advanced MIG Welding</td>
</tr>
</tbody>
</table>

Semester #4:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>W 152C</td>
<td>*Advanced TIG Welding</td>
</tr>
</tbody>
</table>

Total Units: 7

*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 MATH 154.
Repeatability: May be taken a total of 1 time.
Introduces basic arc welding skills with an emphasis on safety, oxy-acetylene cutting, shielded metal arc welding, and GMAW (MIG) welding techniques. Must be at least 18 years old. Materials fees apply. Transfer Credit: Non-transferable.

W 151 TIG Welding
2 units; 1 hour Lecture, 3 hours Laboratory
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 1 time.
Introduces basic training in the flat and out-of-position welding of steels, aluminum, and stainless steel with the GTAW process. Must be at least 18 years old. Materials fees apply. Transfer Credit: Non-transferable.
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 MATH 154.  
Repeatability: May be taken a total of 1 time.  
Continues training in arc and gas welding in various positions; introduces MIG welding, TIG welding, flux cored arc welding and flame cutting. Must be at least 18 years old. Materials fees apply.  
Transfer Credit: Non-transferable.

W 152A  Advanced Arc Welding  
1 unit; 3 hours Laboratory  
Prerequisite: W 152 or equivalent skills.  
Recommended Preparation: Eligibility for MATH 154.  
Repeatability: May be taken a total of 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. Must be at least 18 years old. Materials fees apply.  
Transfer Credit: Non-transferable.

W 152B  Advanced MIG Welding  
1 unit; 3 hours Laboratory  
Prerequisite: W 152 or equivalent skills.  
Recommended Preparation: Eligibility for MATH 154.  
Repeatability: May be taken a total of 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. Must be at least 18 years old. Materials fees apply.  
Transfer Credit: Non-transferable.

W 152C  Advanced TIG Welding  
1 unit; 3 hours Laboratory  
Prerequisite: W 152 or equivalent skills.  
Recommended Preparation: Eligibility for MATH 154.  
Repeatability: May be taken a total of 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. Must be at least 18 years old. Materials fees apply.  
Transfer Credit: Non-transferable.

W 154  Pipe Welding  
2 units; 1 hour Lecture, 3 hours Laboratory  
Prerequisite: W 152 or equivalent skills.  
Recommended Preparation: Eligibility for MATH 154.  
Repeatability: May be taken a total of 1 time.  
Continues advanced training in SMAW and GTAW welding with emphasis on out-of-position pipe and tube welding techniques. Must be at least 18 years old. Materials fees apply.  
Transfer Credit: Non-transferable.

W 155  Ornamental Ironwork  
2 units; 1 hour Lecture, 3 hours Laboratory  
Prerequisite: W 150  
Recommended Preparation: W 152.  
Repeatability: May be taken a total of 1 time.  
Introduces the practical applications of traditional and modern metal-working 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. Must be at least 18 years old. Materials fees apply.  
Transfer Credit: Non-transferable.

W 156  Introduction to Sheet Metal Fabrication  
2 units; 1 hour Lecture, 3 hours Laboratory  
Recommended Preparation: Eligibility for MATH 154.  
Repeatability: May be taken a total of 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. Must be at least 18 years old. Materials fees apply.  
Transfer Credit: Non-transferable.

W 158  Welding Fabrication  
2 units; 1 hour Lecture, 3 hours Laboratory  
Prerequisite: W 150 or W 151.  
Recommended Preparation: Eligibility for MATH 154.  
Repeatability: May be taken a total of 1 time.  
Presents advanced training in steel fabrication utilizing state-of-the-art welding processes with emphasis on blueprint interpretation and welding codes. Must be at least 18 years old. Materials fees apply.  
Transfer Credit: Non-transferable.

W 190AZ  Special Topics in Welding  
0.5 – 5 units; 0.5 – 5 hours Lecture or 1.5 – 15 hours Laboratory  
Repeatability: May be taken a total of 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.  
Transfer Credit: Non-transferable.
Women’s Studies A. A. Degree

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.

Learning Outcomes

The Cabrillo College Core Competencies (with an emphasis in the study of Women’s Studies):

1. Communication: Reading, Writing, Listening, Speaking, and/or Conversing
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving

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.

Learning Outcomes

1. Communication: Reading, Writing, Listening, Speaking, and/or Conversing
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving

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.

Women’s Studies Courses

WS 1 Introduction to Women’s Studies
3 units; 3 hours Lecture
Repeatability: May be taken a total of 1 time.
Examines major social, cultural, economic, and political forces affecting 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.
May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC.

Approved Electives

Select 18 units from the following:

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<th>Course</th>
<th>Units</th>
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<td>WS 5</td>
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<td>Total Units</td>
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A.A. General Education

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<tr>
<td>WS 1</td>
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<td>Global Perspectives on Women and Gender</td>
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<tr>
<td>Women in America</td>
<td>3</td>
</tr>
<tr>
<td>Honors Women in America</td>
<td>3</td>
</tr>
<tr>
<td>Gender and Society</td>
<td>3</td>
</tr>
</tbody>
</table>

TotalUnits: 60
WS 2  Global Perspectives on Women and Gender
3 units; 3 hours Lecture
Repeatability: May be taken a total of 1 time.
Examines major social, cultural, economic, and political forces affecting 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, trafficking, immigration, work, family, and militarism. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU; UC.

WS 5  La Mujer: Latina Life and Experience
3 units; 3 hours Lecture
Repeatability: May be taken a total of 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 families, community involvement, political roles, cultural practices, and values.
Transfer Credit: Transfers to CSU; UC.

WS 11  Feminist Theories
3 units; 3 hours Lecture
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken a total of 1 time.
Examines classic and contemporary feminist theories from across a wide range of academic fields used to analyze women, gender, difference, power, and inequality. Focuses on feminist contributions to the field of social research methods. Topics include sex and gender, bodies, sexuality, labor, science and technology, race, intersectionality, and the nation state.
Transfer Credit: Transfers to CSU; UC.
**Faculty and Administrators**

*Date of original appointment follows name.*

**ALANCRAIG, MARCY (1991)** ................................................................. English
B.A., University of California, Santa Cruz;
M.A., Antioch University West

**ALBERTSON, SARAH (2005)** ............................................................... Theatre Arts/Drama
B.A., Antioch College;
M.F.A., Yale University, School of Art;
M.F.A., Yale University, School of Drama

**ALONZO, JAMIE (2016)** ................................................................. Dean, Natural and Applied Sciences Division
B.S., The University of Idaho;
M.S., University of Maryland, College Park

**AMATO, LORI (2005)** ................................................................. Accounting Manager
A.A., Cabrillo College;
B.S., University of Phoenix

**ANDERSON, CHERYL (1994)** ............................................................... Music
A.B., West Liberty State College, West Virginia;
M.M.E. University of Northern Colorado

**ANDREWS, SPRING (2012)** .................................................. Director of Information Technology
B.P.A., University of San Francisco

**ARBET, DARREN (2018)** ................................................................. Kinesiology
B.A., California State University, Sacramento;
M.A., Concordia University

**AVELAR, DIANNE (2008)** ............................................................... Psychological Counselor
B.A., San Jose State University;
M.A., Santa Clara University

**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

**BELLIVEAU, 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

**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

**BRUCKNER, SUSAN (2007)** ................................................................. Music
B.M., Eastman School of Music;
M.M., San Francisco Conservatory

**BRUNNGRABER, LEE (1996)** ................................................................. Nursing
B.S.N., University of California, Santa Cruz;
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

**BULUT, MURAT (2018)** ................................................................. Mathematics
M.A., Southern Illinois University;
M.S., San Jose State University

**CAMARA, JASON (2002)** ................................................................. Chemistry
B.S., Ph.D., University of California, Santa Cruz

**CANTU, ARTURO (1992)** ................................................................. Counseling
B.S., M.S., California State University, Sacramento

**CARBONE, PAOLO (2008)** .................................................. Soccer Coach & Physical Education
B.A., University of California, Santa Cruz;
M.A., Saint Mary’s College

**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 (2008)** ................................................................. English
B.A., University of California, Santa Cruz;
M.A., Brown University

**CARTIER, KEVIN (2015)** ................................................................. Manager of Technology Applications
Coursework, Los Angeles Valley College,
Mission College, West Valley College

**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

**CHURCH, MARGARET (2015)** ................................................................. Counseling, Accessibility and Support Center
B.S., University of California, Davis;
M.S., San Jose State University

**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

**COLE, LAUREN (2016)** ................................................................. Counseling
B.A., University of California, Santa Barbara;
M.A., California Polytechnic State University
COLOMBANI, LAUREN (2012) .........Medical Assisting
B.S., University of Southern California

COLOSI, DENISE (2018) .................Mathematics
B.A., M.A., University of California, San Diego

COMPOGINIS, LOUIS (1998) ..............Spanish
B.A., University of California, Berkeley;
M.A., California State University, Sacramento

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

DESMET, MARK (2011) .......................Mathematics
B.S., M.S., Western Washington University

B.A., M.A., University of California, Santa Cruz

DONOHUE, MICHELLE (2014) .............Dean of Student Services
B.A., Sonoma State University;
M.A., Indiana University of Pennsylvania;
Ed.D., San Francisco State University

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, JAMES (1991) .....................Music
B.M., University of Arizona;
M.M., University of Northern Colorado

B.A., Washington and Lee University, Virginia;
M.F.A., Virginia Commonwealth University

FABBRI, E. VICTORIA (2008) ...............Communications Studies
B.A., University of Guam;
M.A., University of Hawaii

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

FITZGERALD, CYNTHIA (2013) ..........Associate Dean, Allied Health,
Stroke and Disability Learning Center and Adaptive PE
B.A., University of Washington;
M.A., City University of Seattle;
Ph.D., Azusa Pacific University

FOGUET-MENDOZA, MICHELLE (2013) ........Counseling
B.A., University of California, Santa Barbara;
M.A., San Jose State University

B.A., State University College of New York;
M.A., Columbia University

GALLO, JILL (2007) .......................Assistant Director of Community
and Contract Education
Coursework, California College for the Arts,
Cabrillo College, San Jose State University

GARCIA, MARIO (1999) .....................Counseling
B.S., M.A., California Polytechnic State University, San Luis Obispo

GENTILE, MICHELLE (SKYE) (2005) ......Communication Studies
B.A., M.A., California State University, Hayward

GERHARDT, SARAH (2017) .................Chemistry, NAS Division
B.S., California State Polytechnic University, San Luis Obispo;
Ph.D., University of California, Santa Cruz

GIL, IRMA (1991) .......................Counseling
B.A., M.S., Sacramento State University

GOCHIS, SUZANNE (2017) .................Vice President/Assistant
Superintendent
B.S., Pittsburg State University;
M.S., Southwestern College

GOETTSCH, LOGAN (2016) ...............Emergency Medical Technician
B.S., National University

GOODY, DIANE (1988) ............Assistant Director of Human Resources
A.S., Cabrillo College;
B.S. University of Phoenix

GRABIEL, ERIC (2010) .......................Learning Communities,
First Year Experience Specialist
B.A., University of California, Los Angeles;
Master of Public Policy, California State University, Monterey Bay

GRAULTY, JOHN (2011) ..............Dean, Visual, Applied, & Performing Arts
B.M., Peabody Conservatory of Music;
M.M., New England Conservatory of Music;
M.Ed., Ed.D. Columbia University

GRAZIANI, RICHARD (1995) ..........Computer and Information Systems
B.B.A., Loyola Marymount University;
M.A., California State University, Monterey Bay

GROSS, DEREK (2001) .....................Custodial Supervisor
B.A., University of California, Berkeley

HALTER, MATTHEW (2012) ...............Biology (Human Anatomy &
Physiology)
B.A., University of California, Santa Barbara;
M.A., University of California, Berkeley

HAMILTON, GORDON (1999) ..............Photography
B.A., Yale University

HANCOCK, HART (2014) .....................Information Technology
Services Manager
B.A., University of California, Santa Cruz

HARVELL, PAUL (2000) ..............Acting Dean, Human Arts &
Social Sciences
A.A., West Valley Community College;
B.S., Santa Clara University;
M.A., University of Chicago
HERNANDEZ, CLAUDIA (2015) ........................................ Counseling
B.A., California State University, Fresno; M.A., Fresno Pacific 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

HOISINGTON, SUSAN (2001) ........................................... Photography
B.F.A., San Francisco Art Institute; M.F.A., San Jose State University

HORNER, KELLI (2017) ........................................ MESA/STEM Center Director, NAS Division
B.S., California State Polytechnic University, San Luis Obispo; M.S., Stanford University

HOYT, ANGELA (2017) ........................................ Director of Human Resources and Labor Relations
B.B.A., University of Oklahoma; J.D., University of Houston Law Center

INIGUEZ, FRANCISCO (2008) ........................................ Spanish
B.A., University of California, Davis; M.A., Ph.D., University of California, Irvine

JACKSON, CAROLYN (2011) ........................................ Director of Articulation & Honors Transfer Program
B.A., M.A., San Jose State University

JACKSON, JAY (1998) ........................................ Counseling
B.A., M.A., San Jose State University

JOHNSON, BARBARA (2013) ........................................ Nursing
B.S., California State University, Dominguez Hills; M.S., San Jose State University; Ph.D., University of California, San Francisco

JOHNSON, SCOTT (2013) ........................................ Director of Community and Contract Education Organizational Leadership
Coursework, Brandman University, Monterey

JOSEPH, ZACHARY (2015) ........................................ Counseling
B.A., University of California, San Diego; M.A., San Jose State University; M.A., Stanford University

JUNTADO, ANNABELLE (2016) ........................................... Accounting Manager
B.S., Ateneo de Manila University; Coursework, University of Santa Clara

KELSCH, JOYCE NOEL (2017) ........................................... Director of Dental Hygiene, HAWK Division
M.S., University of California, San Francisco

KERN-JONES, SHERYL (2012) ........................................ Learning Disability Specialist
B.A., University of California, Santa Barbara; M.S., Ph.D., The University of New Mexico

KIDWILER, TERESA (2014) ........................................ Nursing
B.A., University of California, Santa Cruz; B.S., San Jose State University; M.S., University of Phoenix

KOTELYAN, NINA (2018) ........................................ Communication Studies
B.A., M.A., California State University, Northridge

KRAUSE, JOSEPH (1992) ........................................ Mathematics
B.A., M.A., University of California, Santa Cruz

KREIN, BRADLEY (1994) ........................................ Mathematics
B.A., University of California, Los Angeles; M.A., University of California, Berkeley

KUSTEK, RONALD (2018) ........................................ Business
B.A., M.B.A., Michigan State University

LARTER, SALVETORIA (2000) ........................................ Counseling
A.A., University of Maryland, Munich, Germany; B.A., University of California, Santa Cruz; M.A., San Jose State University

LEAL, JULIO (1995) ................................................. English
B.A., M.A., California State University, Fresno

LEE, JENNIFER (2001) ........................................ Psychology
B.A., University of California, Berkeley; M.A., Ph.D., University of California, Davis

LEMUS, IRVIN (2018) ........................................ Computer Information Systems
B.S., Mt. Sierra College

LEONARD, RHEA (2001) ........................................ Computer Science
B.S., San Jose State University

LEUM, LEONARD (2016) ........................................ Mathematics
B.A., M.A., University of California, Santa Cruz; M.S., California State University, East Bay

LEVI, ZERUBBA (2013) ........................................ Chemistry
B.S., Gonzaga University; M.A., University of California, Berkeley

LEWIS, VICTORIA (2004) ........ Vice President/Asst. Superintendent, Administrative Services
B.S., M.B.A, California State University at Fresno

LIM, DENISE (1994) ........................................ Biology
B.S., University of California, Irvine; M.A., University of Colorado, Boulder

LOBATO, ALFONSO (2001) ........................................ Mathematics
B.A., Occidental College; M.A., Northern Arizona University

LOGG, JACQUELYNNE (2016) ......................................... Sociology
B.A., California State University, Sacramento; M.A., San Jose State University

LUCERO, ANNE (2001) ........................................ Nursing
B.A., California State University, Chico; Nursing Program, California State University, Dominguez Hills; M.A., San Jose State University

LUNA, CONNIE (2012) ........................................ Radiologic Technology Clinical Coordinator
B.S., University of St. Francis

LUNDQUIST, VERONICA (2008) ................................ Mathematics
B.A., M.S., San Jose State University

MACEDO, M. TERESA (2005) ......................................... Sociology
B.A., University of California, San Diego; M.A., University of Michigan; Ph.D., University of Michigan
MACVEIGH, JEREMY (2014)..............Culinary Arts & Hospitality
Management
Diploma, Western Culinary Institute;
B.S., University of California, Davis

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;
M.A., Ph.D., University of California, San Diego

MANSFIELD, KIMBERLY (2015)........Counselor, CESS Division
B.A., M.A., San Jose State University

MARA, ROBIN (2014).....................Communication Studies
B.A., M.A., San Jose State University

MARTOCCIA, GARY (1998)...............Engineering Technology
B.S., University of New York;
M.A., California State University, Long Beach

MARESULUOS, ANTHONY (2000).........Kinesiology
B.A., California State University, Stanislaus;
M.A., University of the Pacific

MATERA, MICHAEL (2013).............Computer and Information Systems
B.S. University of California, Santa Cruz

MAYO, RACHEL (1989).............Dean of Education Centers and
Online & Innovative Learning
B.A., M.A., University of the Pacific;
Ph.D., University of Barcelona, Spain

McCULLOUGH, JOSEPH (2001)...........Physics
B.A., Johns Hopkins University;
M.S., Ph.D., University of California, Santa Cruz

MCFARLAND, ROBIN (1998).............Biology
B.A., Southern Oregon State;
Ph.D., University of Washington

McKENZIE, DUSTIN (2008)............Anthropology
B.A., M.A., University of California, Santa Barbara

MCKINNON, MERRY E. (1998)..........Counseling, Accessibility
Support Center
B.A., San Francisco State University;
M.A., Santa Clara University

MCKINNON, TAMARA (2017)............Nursing, HAWK Division
B.S., California State University, Chico
Doctor of Nursing Practice, Case Western Reserve University

McNETT, PAYSON (2017)...............Art Studio, VAPA Division
M.F.A., Indiana University

MEIER, MARCELLA (2014)............Student Health Services
Nurse Practitioner
B.S., State University of New York at Binghamton;
M.S., University of Rochester

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)...............Human Services
B.A., Humboldt State University;
M.S.W., Boston University

MILES, ERIC (2016).....................Mathematics
B.S., University of the Pacific;
M.S., California State University, Hayward;
Graduate Study, University of California, Santa Cruz

MORGAL, DANI (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;
B.A., M.A., University of California, Davis

MORNARD, CHARLES (2004)..........Construction and Energy
Management
A.S., Cabrillo College;
B.S., California State University, Sacramento;
M.P.A., San Jose State University

MORRISON, CHARLOTTE (2005)........Communication Studies
B.A., M.A., Western Washington University

MORTON, MICHELLE (2013)...........Instruction Librarian
B.A., M.A., University of New Mexico;
M.L.S., San Jose State University;
Ph.D., University of California, Santa Cruz

MULCAIR, CARRIE (2015)..............Grants Development Director
B.S., Master of City Planning, University of California, Berkeley

MULLIN, TERRY (2013)...................Accounting
B.A., Augustana College, Rock Island, IL;
M.S., Illinois State University;
M.B.A., Illinois State University

NAJARRO, ADELA (2005)...............English
B.A., University of Redlands;
M.F.A., Vermont College of Norwich University;
Ph.D., Western Michigan University

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

NAKAZAWA-HEWITT, MOTOKO (2016)....Counseling
B.A., Gakushuin University;
M.F.A., California State University, Hayward;
M.S., Oregon State University

NEAD, CHRISTOPHER (2005)..........Director of Admissions and Records
B.A., University of London

NOGUEIRA, MARCELO (1998)...........Computer Applications
B.A., University of California, Santa Cruz

NOLTHENIUS, RICHARD (1986).........Astronomy
B.S., M.S., University of Arizona;
M.A., Ph.D., University of California, Los Angeles

NORDGREN, JON (2004)...............Music
B.A., M.A., California State University, Hayward
NORRIS, 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
B.S., University of Hartford;
M.S., University of the Pacific

NUNN, DOROTHY (2001) ....................................................... Nursing
B.S., University of San Francisco;
M.S., University of California, San Francisco;
Graduate Study, Santa Clara University

O'BRIEN, RORY (1998) .............................................. Political Science
B.A., California State University, Northridge;
M.A., Ph.D., University of Southern California

OCHAO, BRENDAL (2016) ............................................ Counseling
B.A., San Jose State University;
M.S.W., San Jose State University

O'REILLY, ISABEL (2011) ..................................Dean, Guided Pathways
B.A., Loyola Marymount University;
M.A., University of California, Los Angeles

OMOSUPE, EKUA (1992) ........................................ English
B.A., University of Colorado;
M.A., Ph.D., University of California, Santa Cruz

ORTEGA, CHRISTINA (2016) ........................................ Counseling
B.A., M.S., California State University, Fresno

PAGES, JAMES (2018) ...............Director of Wellness Education Center
B.A., University of California, Santa Cruz;
M.S., Ohio University

PANZARDI, JO-ANN (1995) .......................................Engineering
B.S., Polytechnic University, Brooklyn, New York;
M.S., University of Maryland, College Park, Maryland

PARRISH, EDWARD (2002) ..................Computer Science
A.A., West Valley College;
B.A., University of California, Berkeley;
M.S., University of California, Santa Cruz

PASTOR-CROSS, PATRICIA (2014) ......Director of Children's Center
A.A., Social Science;
B.A., San Jose State University;
M.A., Chapman University

PAYNE, HELENE (2018) ...................Mathematics
M.S., Georgia Institute of Technology;
M.S., San Jose State University

PEBORTHWORTH, MICHAEL (2001) .................. History
B.A., Indiana University;
M.A., Ph.D., University of Oregon

PETERSON, HEATHER (2018) .....................Art History
B.A., University of California, Santa Cruz;
M.A., San Jose State University

PFOTENHAUER, R. ROCK (1985).........Dean, Regional & Statewide
Workforce Development Partnerships
B.A., M.S., University of California, Santa Cruz

PHILLIPS, NANCY (2007) ..........English Learning Center Director
B.A., California State University, Long Beach;
M.S., California State University, Fullerton;
M.A.T., University of Southern California

PIRCIO, ROY (2008) .........................Fiscal Services Manager
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PLUMP, BRIELLE (2018) ......................... Communication Studies
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POTKIN, MARTHA (MARTY) (2006) ............... Nursing
B.S., Mount St. Mary's College;
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PUENTE, RODOLFO (RUDY) (2007) .............. Counseling
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PUTNAM, DIANE (1998) ......................... English
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
B.A., University of California, Santa Cruz;
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RAMSEY, MARK (2015) ............Associate Dean, Athletics, Kinesiology and Health Science
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REGARDZ, BETH (1997) .........................Digital Media
B.A., Stanford University

REUSCHLING, PAULA (2015) ................. Mathematics
B.A., Humboldt State University;
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REYES, KAREN (2013) ..................Director of Student Resource & Support Network
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REYNOLDS, DAVID (2005) ......................... Mathematics
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ROBELLO, ARIEL (2016) .................English
B.A., Occidental College;
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ROBINS, MICHAEL (2012) ............Director of Purchasing,
Contracts & Risk Management
B.A., University of California, Santa Cruz

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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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ROWELL, NICHOLAS (2014) Political Science
B.A., University of Arkansas;
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SALISBURY, JONATHAN (2017) Director of Facilities,
Planning and Plant Operations
B.A., California Polytechnic State University;

SANBORN, PAMELA (2010) Medical Assisting
A.S. Cabrillo College;
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B.A., University of California, San Diego;
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SCHOLAR, DEIRDRE (2011) Geography/Meteorology
B.A., M.A., University of California, Santa Cruz

SCHULTZ PÉREZ, BARBARA (1997) Counseling
B.A., M.A., University of California, Santa Barbara

SCHWARTZ, DAVID (1986) Geology/Oceanography
B.S., Ohio State University;
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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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SHIPLEY, LAURIE ANN (2018) Mathematics
B.S., M.S., California Polytechnic State University San Luis Obispo

SIMCIK, LUKE (1997) Mathematics
B.S., U.S. Air Force Academy;
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SLATER, SUSAN (1997) Culinary Arts and Hospitality Management
A.S., Cabrillo College;
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SMITH, REBECCA Philosophy
B.A., University of California, Los Angeles;
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B.A., University of Chicago, Chicago;
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B.S., Chennai, India;
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TAN, YVES (2004) Biology
B.A., University of California, Berkeley;
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THOMAS, JOSHUA (2006) Swimming, Diving,
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TUCKER, MERRITT (1999) Stroke and Disability Learning Center/Adaptive Computing
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VERED, JENNIFER (2013) Computer Applications & Business Technology
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WATSON, MARCUS (2008) Physics
B.S., California State University, Chico;
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WECKLER, JAMES. (2005) ........................... Dean, Business, English, and Language Arts Division
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B.S.N., University of Oregon Health Sciences Center;
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WYNER, THOMAS (2015) ......................... Assistant Director, Facilities Planning and Plant Operations
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