Catalog
2018-2019

Cabrillo College
6500 Soquel Drive
Aptos, California 95003
(831) 479-6100

www.cabrillo.edu

Founded 1959
“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 II

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
Accounting and Finance
Bilingual and Bicultural Studies
Business
Computer Applications
English/Journalism
Business Technology
English as a Second Language
World Languages

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

GUIDED PATHWAYS
Dean: Isabel O'Connor

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

Associate Dean: Mark Ramsey
Athletics
Kinesiology
Health Science

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

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

NATURAL AND APPLIED SCIENCES
Dean: Jamie Alonso
Astronomy
Biogeochemistry
Chemistry
Computer and Information Systems
Computer Science
Construction and Energy Management
Engineering
Engineering Technology
Environmental Science
Geology
Horticulture
Mathematics
MESA
Oceanography
Physics
Welding

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

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

Academic Calendar 2018-2019

FALL SEMESTER
August 20, 2018 - December 15, 2018
- Fall Semester begins for Staff and Faculty (FLEX)
- First day of classes
- September 3 - Labor Day Holiday
- 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
- 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 - Last day 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 - Deadline for pass/no pass grade option in a full-term course
- 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
- Four-week session
- Six-week session
- Eight-week session
- 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 $11.8 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 November 1972. The expansion included a new Science and Social Sciences building and a new Business Administration and Liberal Arts building opened in fall 1978.

In 1998, Cabrillo College acquired the old Watsonville Library, adjacent to the Watsonville Center. In 2001, the college opened a world-class Environmental Horticulture Center on the Aptos campus. It 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 Rodríguez 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. Cabrillo died 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 within and beyond the college and its 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 trust, respect, 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
Students at Cabrillo College are required to demonstrate 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 and Technical Education degree and certificate, and for every course in the college. 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 and College of Education, an 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 Board of Education for the offering of the Associate Degree and the provision of the G.E. Bill of Rights. 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

Transfer Education: 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 school 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.

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 non-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 Seison 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 facilities, 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 online, partially online (hybrid), or in person. 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) 479-5300.

EVENING CLASSES
The evening program is an extension of the day program, parallel in 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 requirements 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 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 Unfairful Harassment, Discrimination, and/or Retaliation: (831) 479-6234

Dr. Michelle Donohue, Dean, Student Services: (831) 477-3384

The College recognizes its obligation to provide overall program access 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

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General Information

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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. Tiene 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 a del Titulo IX: (831) 477-3373
- Angela R. Hoyt, J.D., Coordinator a del Sección 504: (831) 479-6234
- Victoria Lewis, ADA Coordinator a de ADA: (831) 479-6406
- Samantha Folb, J.D., Coordinator: a del Título IX: (831) 477-3373
- Angela R. Hoyt, J.D., Directora de Recursos Humanos y Relaciones Laborales, Oficina 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 disposiciones, 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) 479-3373.

PLAN DE ACCION SOBRE ACUSO SEXUAL
Es el plan de acción del Distrito de Cabrillo Community College a proveer un ambiente de educación, de empleo y de negocios libres de avances sexuales no deseados, de solicitudes de favores sexuales y de cualquier otro tipo de conducta o comunicación verbal o física que constituya un hostigamiento sexual, según lo definen y lo prohiben los estatutos estatales o federales. Para más información sobre este plan de acción y sobre los procedimientos al respecto, comuníquese con el Coordinador a del Titulo IX (831) 479-6525.

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.
Admission and Registration

WELCOME CENTER
The Welcome Center is a full-service center dedicated to assisting stu-
dents 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/Deep 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 are in good standing
for 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 ori-
entation, 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 com-
pleted 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, de-
clare a major, and/or are not in good standing
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: A and AS-T 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 ex-
empt from losing registration priority based on 100 units or more or for
falling to meet minimum academic standards.
Units earned at other colleges and universities, from AP, Military, CLER,
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 circum-
stances 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 form for Admissions & Records,
- Complete the comment section of the form explaining why regis-
tration priority should be reinstated,
- Provide documentation as to the extenuating circumstance or signif-
icant academic improvement,
- Submitted appeals will be reviewed and a decision will be communi-
cated to the student by e-mail 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 equi-
calent 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 gradu-
ate 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 diplo-
ma. All non-high school graduates should request special counseling
from the Counseling Department.

Admission of Minor Students Without High School Diploma--
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 num-
bered 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 eligi-
ble minor students in compliance with the district priority admission
mandates outlined in Education Code Section 76000 and in the dis-
trict’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 mi-
nors 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) the
ater, 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 col-
lege students.
- You are responsible for reviewing and abiding by all academic poli-
cies 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 a
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 informa-
tion 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 en-
roll 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 col-
leges/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.
Residents, or on a visa that allows the student to establish California residence under one of the following conditions:

- California resident. State law requires consideration of financial independence as a California resident 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.

- 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.

- If the student is under 18 years of age and either parent 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.

- If the student has completed three years of high school in California and has 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 18.41

- 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.

*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.

**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 in-state resident students.

- 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 18.41

- 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 them on WebAdvisor.

**RESIDENCY REQUIREMENTS**

All students not meeting the requirements below will be classified as non-residents. In addition to non-resident 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 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.

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 either parent 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.

**CROSS ENROLLMENT**

UCSC AND CS 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/registration/take-class-usc-or-community-college and for UCSC at: http://register.ucsc.edu/forms/students/cross-enrollment.pdf.

**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 through the Cabrillo College International Office or online at www.cabrillo.edu/services/international).
- $50 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.

**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, reduced their study to less than a full program. All new international 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.
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 courses that require important prerequisites and course prerequisites (e.g., engineering, health sciences), which may require more than the typical 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 also 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 hour in class succeed and graduate at a higher rate.

Cabrillo College and its faculty and staff understand that some students are the first in their family to attend college. That reality 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. Cabrillo is an exciting and life-changing event. Work with a counselor to take the correct courses in the correct order, and you will prevent a student from losing some of the college benefits such as priority registration and financial aid.

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 already have been acquired. The Challenge Process is not used to bypass classes, rather it is used to bypass your assessment score, or for classes that are in progress.

E-forms for challenging pre- or co-requisites are available online at www.cabrillo.edu/eforms. More questions can be answered online for students who have a credential 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.

Application for Admission

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 other 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-Drop

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-Drop Form for online registration. This form can be accessed online or in the Cabrillo catalog. For more information contact the Cabrillo Academic and Records Office. No addition of classes may be made after the last day to add indicated in the current Schedule of Classes.

An add/drop window is available for the last two weeks of the short-term and summer courses have much shorter deadlines. Consult the instructor or Admissions & Records for deadlines for date.
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 student, who has completed all course and unit requirements for the Associate in Arts or Associate in Science Degree, is deemed to be in Cabrillo's best interest.

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 fees. 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/af/fees-fallspring.html.

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

California Education Code section 37635 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 enrollments are not subject to the Student Center fee. The fee is $1 per unit for all California residents. For the current fee schedule, go to the Cabrillo website: https://www.cabrillo.edu/services/af/fees-fallspring.html.

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 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 will be charged the Student Center fee. (California Education Code section 76375).

Student Activity Card Fee
The Student Activity Card fee of $10.00 is automatically charged to each student. The cost to attend and participate in ASC activities is free or discounted to those who pay the Student Activity Card 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.

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.

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.

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 ASC 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 the California Education Code section 76740. 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/enrollment/calendars-arith.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.

Academic Policies and Procedures

Fee Refunds
- Courses canceled by the College.
- Reduced unit load of full-term courses dropped by the deadline date.
- Reduced unit load within the 10% deadline for short-term courses.
- Fees collected in error.

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.
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 "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 complete the course in one year. A student may not clear an incomplete grade by retaking the course. The condition for removal of the "I" shall be stated by the instructor in the incomplete contract. This contract shall contain the conditions for removal of the "I" and the default grade should the incomplete course requirements never be met. It will be sent to the student, with a copy to remain on file in Admissions & Records at Aptos until the "I" is made up or the time limit has passed. A final grade shall be assigned when the work stipulated has been completed and evaluated or when the one year for completing the work has passed. A student may petition to the instructor or division, with a copy to the Director of Admissions & Records, for an extension due to unusual circumstances. The "I" shall not be used in calculating units attempted or for grade points.

Instructor 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.
"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 record. After 75% of the course has elapsed, no ‘W’ will be issued and the student will receive a grade. If a student withdraws from school due to extenuating circumstances such as verified cases of accident, illness, or other circumstances beyond the student’s control, the instructor will use discretion in granting the student an “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&M 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>
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<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>
<td>3</td>
<td>3</td>
<td>D8</td>
</tr>
<tr>
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<td>6</td>
<td>0</td>
<td>N/A</td>
</tr>
<tr>
<td>Computer Science AB</td>
<td>6</td>
<td>0</td>
<td>N/A</td>
</tr>
<tr>
<td>Computer Science Principles</td>
<td>6</td>
<td>3</td>
<td>B4</td>
</tr>
<tr>
<td>English: Language &amp; Comp</td>
<td>6</td>
<td>3</td>
<td>A1 + C2</td>
</tr>
<tr>
<td>English Literature &amp; Comp.</td>
<td>6</td>
<td>3</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>
<tr>
<td>German Language &amp; Culture</td>
<td>6</td>
<td>3</td>
<td>C2</td>
</tr>
<tr>
<td>Human Geography</td>
<td>3</td>
<td>3</td>
<td>D5</td>
</tr>
<tr>
<td>Italian Language &amp; Culture</td>
<td>6</td>
<td>3</td>
<td>C2</td>
</tr>
<tr>
<td>Japanese Language &amp; Culture</td>
<td>6</td>
<td>3</td>
<td>C2</td>
</tr>
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<td>Latin</td>
<td>6</td>
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<td>Macroeconomics</td>
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<tr>
<td>Music Theory</td>
<td>6</td>
<td>3</td>
<td>C1</td>
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<tr>
<td>Physics 1</td>
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<td>4</td>
<td>B1 + B3</td>
</tr>
<tr>
<td>Physics 2</td>
<td>4</td>
<td>4</td>
<td>B1 + B3</td>
</tr>
<tr>
<td>Physics C (electricity/magnetism)</td>
<td>4</td>
<td>4</td>
<td>B1 + B3</td>
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<tr>
<td>Physics C (mechanics)</td>
<td>4</td>
<td>4</td>
<td>B1 + B3</td>
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<tr>
<td>Psychology</td>
<td>3</td>
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<td>D9</td>
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<td>Spanish Language &amp; Culture</td>
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<td>Spanish Literature &amp; Culture</td>
<td>6</td>
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<td>C2</td>
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<td>Seminar</td>
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<td>Statistics</td>
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<td>3</td>
<td>B4</td>
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<td>Studio Art 2D/3D/Drawing</td>
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<td>US Gov't &amp; Politics</td>
<td>6</td>
<td>3</td>
<td>D8 + U5-2</td>
</tr>
<tr>
<td>U.S. History</td>
<td>6</td>
<td>3</td>
<td>(C2 or D6) + U5-1</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’10, 6 units of GE awarded for Cabrillo. AP Physics 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).
<table>
<thead>
<tr>
<th>College Board AP Exam</th>
<th>CSU Units Minimum</th>
<th>CSU GE Units Earned</th>
<th>GE Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art History</td>
<td>3</td>
<td>3</td>
<td>C1 or C2</td>
</tr>
<tr>
<td>Biology</td>
<td>3</td>
<td>4</td>
<td>B2 + B3</td>
</tr>
<tr>
<td>Calculus AB</td>
<td>3</td>
<td>4</td>
<td>B4</td>
</tr>
<tr>
<td>Calculus BC</td>
<td>3</td>
<td>4</td>
<td>B4</td>
</tr>
<tr>
<td>Calculus BC/AB subscore</td>
<td>3</td>
<td>4</td>
<td>B4</td>
</tr>
<tr>
<td>Chemistry</td>
<td>3</td>
<td>4</td>
<td>B1 + B3</td>
</tr>
<tr>
<td>Chinese Language &amp; Culture</td>
<td>3</td>
<td>4</td>
<td>C2</td>
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<tr>
<td>Comparative Gov't &amp; Politics</td>
<td>3</td>
<td>3</td>
<td>D8</td>
</tr>
<tr>
<td>Computer Science A</td>
<td>3</td>
<td>6</td>
<td>N/A</td>
</tr>
<tr>
<td>Computer Science AB</td>
<td>3</td>
<td>6</td>
<td>N/A</td>
</tr>
<tr>
<td>Computer Science Principles</td>
<td>3</td>
<td>6</td>
<td>B4</td>
</tr>
<tr>
<td>English: Language &amp; Comp.</td>
<td>3</td>
<td>6</td>
<td>A2</td>
</tr>
<tr>
<td>English Language &amp; Comp.</td>
<td>3</td>
<td>6</td>
<td>A2</td>
</tr>
<tr>
<td>Environmental Science</td>
<td>3</td>
<td>4</td>
<td>B1 + B3</td>
</tr>
<tr>
<td>European History</td>
<td>3</td>
<td>4</td>
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<td>4</td>
<td>C2</td>
</tr>
<tr>
<td>Human Geography</td>
<td>3</td>
<td>3</td>
<td>D5</td>
</tr>
<tr>
<td>Italian Language &amp; Culture</td>
<td>3</td>
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<tr>
<td>Latin</td>
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<td>C2</td>
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<tr>
<td>Macroeconomics</td>
<td>3</td>
<td>3</td>
<td>D2</td>
</tr>
<tr>
<td>Microeconomics</td>
<td>3</td>
<td>3</td>
<td>D2</td>
</tr>
<tr>
<td>Music Theory</td>
<td>3</td>
<td>3</td>
<td>C1 (FA 99)</td>
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<tr>
<td>Physics 1</td>
<td>3</td>
<td>4</td>
<td>B1 + B3</td>
</tr>
<tr>
<td>Physics 2</td>
<td>3</td>
<td>4</td>
<td>B1 + B3</td>
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<td>Physics C (mechanics)</td>
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</tr>
<tr>
<td>Psychology</td>
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<td>3</td>
<td>D9</td>
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<tr>
<td>Spanish Language &amp; Culture</td>
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<td>0</td>
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<tr>
<td>Statistics</td>
<td>3</td>
<td>3</td>
<td>N/A</td>
</tr>
<tr>
<td>Studio Art 2D/3D/Drawing</td>
<td>3</td>
<td>3</td>
<td>D8 + US-2</td>
</tr>
<tr>
<td>U.S. History</td>
<td>3</td>
<td>3</td>
<td>(C2 or D6) + US-1</td>
</tr>
<tr>
<td>World History</td>
<td>3</td>
<td>3</td>
<td>C2 or D6</td>
</tr>
</tbody>
</table>

*If test was taken prior to F09, 6 units of GE awarded for Cabrillo. AP Physics B exam accepted if taken prior to F13.

**The Environmental Science exam can earn either B2 or B1 plus B3 through F09, 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).
### 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>
</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>
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<td>3</td>
<td>3</td>
<td>C2</td>
</tr>
<tr>
<td>Biology</td>
<td>50</td>
<td>3</td>
<td>3</td>
<td>B2</td>
</tr>
<tr>
<td>Calculus</td>
<td>50</td>
<td>3</td>
<td>3</td>
<td>B4</td>
</tr>
<tr>
<td>Chemistry</td>
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<td>B1</td>
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<td>3</td>
<td>3</td>
<td>B4</td>
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<td>College Algebra/Trig</td>
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<td>3</td>
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<td>B4</td>
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<td>Intro Psychology</td>
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<td>Natural Sciences</td>
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<td>3</td>
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<td>B1 or B2</td>
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<td>Pre-Calculus</td>
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<td>3</td>
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<td>B4</td>
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<td>Principles of Acct</td>
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<tr>
<td>Princ. of Macroecon</td>
<td>50</td>
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</tr>
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<td>Princ. of Management</td>
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<td>Princ. of Microecon</td>
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<td>63</td>
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<td>50</td>
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<td>3</td>
<td>C2</td>
</tr>
<tr>
<td>Trigonometry</td>
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<td>9</td>
<td>3</td>
<td>C2</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>C2 or 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>
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<tbody>
<tr>
<td>American Government</td>
<td>50</td>
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<td>American Literature</td>
<td>50</td>
<td>3</td>
<td>3</td>
<td>C2</td>
</tr>
<tr>
<td>Analyzing and Interp. Literature</td>
<td>50</td>
<td>3</td>
<td>3</td>
<td>C2</td>
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<tr>
<td>Biology</td>
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<td>3</td>
<td>3</td>
<td>B2</td>
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<td>Calculus</td>
<td>50</td>
<td>3</td>
<td>3</td>
<td>B4</td>
</tr>
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<td>Chemistry</td>
<td>50</td>
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<td>B1</td>
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<td>College Algebra</td>
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<tr>
<td>English Literature</td>
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<td>3</td>
<td>3</td>
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</tr>
<tr>
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<td>C2</td>
</tr>
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<td>6</td>
<td>0</td>
<td>N/A</td>
</tr>
<tr>
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<td>50</td>
<td>6</td>
<td>3</td>
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<td>6</td>
<td>3</td>
<td>C2</td>
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<td>German II Level</td>
<td>60</td>
<td>12</td>
<td>3</td>
<td>C2 ended F'15</td>
</tr>
<tr>
<td>History, United States I</td>
<td>50</td>
<td>3</td>
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<td>D6 + US-1</td>
</tr>
<tr>
<td>History, United States II</td>
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<td>3</td>
<td>D6 + US-1</td>
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<td>History</td>
<td>50</td>
<td>3</td>
<td>3</td>
<td>D6 + US-1</td>
</tr>
<tr>
<td>Human Growth &amp; Devel.</td>
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<td>3</td>
<td>3</td>
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<tr>
<td>Humanities</td>
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<td>3</td>
<td>3</td>
<td>C2</td>
</tr>
<tr>
<td>Info Syst. &amp; Comp. App</td>
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<td>3</td>
<td>0</td>
<td>N/A</td>
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<tr>
<td>Intro to Educ. Psych</td>
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<td>3</td>
<td>0</td>
<td>N/A</td>
</tr>
<tr>
<td>Intro to Business Law</td>
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<td>0</td>
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<tr>
<td>Intro Psychology</td>
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<td>D9</td>
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<tr>
<td>Intro to Sociology</td>
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<td>3</td>
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<td>Natural Sciences</td>
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<tr>
<td>Pre-Calculus</td>
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<td>3</td>
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<td>B4</td>
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<td>Principles of Acct</td>
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<td>N/A</td>
</tr>
<tr>
<td>Principles of Macroecon</td>
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<td>3</td>
<td>D2</td>
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<tr>
<td>Principles of Marketing</td>
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<td>3</td>
<td>3</td>
<td>N/A</td>
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<tr>
<td>Principles of Microecon</td>
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<td>3</td>
<td>N/A</td>
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<td>C2</td>
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<tr>
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<td>C2</td>
</tr>
<tr>
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<td>C2</td>
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<td>Trigonometry</td>
<td>50</td>
<td>9</td>
<td>3</td>
<td>C2</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>C2 or 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 Breath, 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 Breath area.
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 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>B2</td>
</tr>
<tr>
<td>Geography HL</td>
<td>5</td>
<td>6</td>
<td>3</td>
<td>D2</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 Language 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>3</td>
<td>N/A</td>
</tr>
<tr>
<td>Mathematics HL</td>
<td>5</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>3</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>B2</td>
</tr>
<tr>
<td>Geography HL</td>
<td>5</td>
<td>6</td>
<td>3</td>
<td>D2</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 Language 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>
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<td>6</td>
<td>3</td>
<td>N/A</td>
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<tr>
<td>Mathematics HL</td>
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<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>3</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>
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<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>4</td>
</tr>
<tr>
<td>Language A Literature (any except English) HL</td>
<td>4</td>
<td>3</td>
<td>3B or 4*</td>
</tr>
<tr>
<td>Language A Language and Literature (any except English) HL</td>
<td>4</td>
<td>3</td>
<td>3B or 6A</td>
</tr>
<tr>
<td>Language A Literature (any language) HL</td>
<td>4</td>
<td>3</td>
<td>3B or 6A</td>
</tr>
<tr>
<td>Language A Language and Literature (any language) HL</td>
<td>4</td>
<td>3</td>
<td>3B or 6A</td>
</tr>
<tr>
<td>Language B (any language) HL</td>
<td>4</td>
<td>3</td>
<td>3B or 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>2A</td>
</tr>
<tr>
<td>Psychology HL</td>
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<td>5A (without lab)</td>
</tr>
<tr>
<td>Theatre HL</td>
<td>4</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) *B* 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.
2. Although not every course may be credited by examination, a course to be credited by examination 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 Webpage.
3. 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.
4. 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.
5. The number of units to be granted is not greater than that listed for the course in the Cabrillo College Catalog.
6. 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.
7. Arrangements for the administration of the credit by examination have been made with an authorized instructor who will agree to administer the examination.
8. 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 for as other units of credit, prior to taking the exam.
9. The fee for the course is waived for high school students petitioning for credit by examination for articulated high school courses.
10. 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 by 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 speak to 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/curriculum 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 be allowed to repeat as listable, 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 5 categories:

1) Courses ceded as athletics (Cabriilo ATH courses), including off-season conditioning courses, subject to the limitations on hours per year contained in Title 5 §55041.

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 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 stated in the competition.

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 stated 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 courses 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 repeated by request 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 students can allow students to repeat a course on an individual basis is included in new Title 5 regulation §55040. Cabriilo College has developed policies to outline the process through which it will verify that a student needs to repeat a course under these provisions.

What was Cabriilo advising students to do with courses that were once repeatable but now are not?

Cabriilo’s Curriculum committee has examined the college’s curricular guidelines 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 successively once by any 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 a 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 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 those four enrollments. This limitation is specific to physical education (KIN) and visual and performing arts (ART, AEP, MUS, TAI) career technical education (CTE) and other disciplines have no such restriction.

If I separate our courses into levels, each one may not have enough students by itself to survive. Can Cabriilo 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 thing to consider in offering classes 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 classes must 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 Cabriilo College know how to divide courses into families or how many families to create?

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

The Cabriilo Curriculum Committee reviewed hundreds of new courses, as well as modifications to many other existing courses during the 2012-2013 Academic Year. Those course 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 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?


Repetition of Courses for Financial Aid Recipients

The Financial Aid Office is required to monitor courses students have repeat during their entire time at Cabriilo College. Financial Aid students may only receive federal financial aid for one repeat of a previously passed course (with grades of A, B, C, I, 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 prerequisite of this process is that the record be reviewed for academic renewal by the Academic Council under the following conditions:

1. Two years have elapsed since the last standard grades were awarded.
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 may 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 College record with an official transcript from another college or university, if the above conditions are met.

Alleviated grades will have the code “DB” (allibration of unsatisfactory grade) on the transcript next to the grade, or the letter “R” (Rejected). Academic renewal at Cabriilo College does not guarantee that other colleges will accept such work. 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 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 student to be considered for renewed grades.

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

More information is available 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 Cabriilo 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 Cabriilo College in the event of their failure to maintain the required grade point average. The standards set forth by the District shall include the following categories:

1. Academic Probation

   1.1) 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 the student 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.

   1.2) Progress Probation: A student who has failed 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” and “NP” have been recorded, reaches or exceeds 50 percent.

   1.3) Dismissal: 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” or “NP” have been recorded, reaches or exceeds 50 percent.

   The two probationary criteria described above will be applied in such a manner that a student may be placed on probation under either or both systems, and subsequently may be dismissed under either or both systems. 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” or “NC” drops below fifty percent (50%).

   Cabriilo College will publish in 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. If a hold is issued, the student 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 this minimum semester GPA is maintained (AP 42380). 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 unenrolled for one semester must meet with a counselor to review academic goals and other relevant concerns to have a successful educational experience. Dismissed students, who have already attended the workshop, who wish 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. 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 loss of a grade, having 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 for overlapping classes, beyond 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.

  • Excessive Absence

Class hours of absence are considered excessive when they total more than thirty percent of the class meetings held during each week of a 14-week semester. This proportionally applies to short-term day, evening, summer, and weekend classes. For example, if a student is absent for more than 30% of the class meetings held when that class is considered as a full-term class during a fall or spring semester meets for three hours per week, the student's absence can be considered excessive, irrespective of the number of class meetings missed.

Excessive absence from class as defined in the above paragraph will constitute reason for an instructor to drop a student from that class. However, it is the student's responsibility to officially withdraw from classes by published deadlines to avoid failing grades.

Attendance at First Class Meeting

Students who do not attend the first class meeting may be dropped and their seats filled by other students. If a student is unable to attend the first class meeting, it is his/her responsibility to notify the instructor personally or in writing. Students should not, however, assume that they will be dropped. It is the student's responsibility to officially drop a course using WebAdvisor online registration. If the instructor does drop the student, he or she is not to notify the student before that class meeting and request that the seat be held. The instructor is under no obligation to honor this request.

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/ace/

Puente Project

The mission of the Puente Program 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 cultural and social interactions among a professionally educated 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

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 fulfill three hours of work outside of class. The number of hours awarded for laboratory courses is generally based on the number of hours of laboratory work, presuming that students complete most required work in class.

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 registration 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.eternal.edu/for/m53. Reasons for challenging requisites or limitations may include but not limited to band, orchestra, theatre, competitive speech, chorus, journalism, dance, and intercollegiate athletics; courses that carry an honors designation; and classes or courses sectioned 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 Challenge Request process. See below.

Mandatory Challenge Policy

All courses with prerequisites require a Challenge Form. Enrolled students who successfully challenge a transferable requisite may be excused from taking the course in question. Students who do not receive credit for the requisite course. As a result, transfer students should first consult with a Cabrillo counselor.

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 requests that 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 class will be processed during registration. If a student drops a course that has a co-requisite, the co-requisite cannot 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; and classes or courses sectioned designed to create a specific student group.

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Appraisal and Appeal of Academic Standards

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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 Veterans Education Institute.

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 VIC will list full term units as full-time, ¾ full-time units as ¾-time, and ½ 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/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 each year with a grade of A, B, C, D, or P (IP) at Cabrillo College, or for another U.S. regionally accredited institution of higher learning. Documented military or medical leave is not considered an interruption of enrollment.

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 (IP) at Cabrillo College, or at another U.S. regionally accredited institution of higher learning.

Substitution or Waiver of Graduation Requirements
Cabrillo College recognizes that a disability may preclude a student from demonstrating required math, reading, and writing competencies or from completing course requirements necessary for an A.A. or A.S. Degree in the same manner in which non-disabled students are expected. The College also recognizes the need to accommodate students with documented disabilities to the greatest extent possible without compromising a disabled student’s course of study and without compromising the integrity of any student’s degree. Contact the 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 designate 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.
3. The right to provide 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 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.

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 release aggregate data, 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 54961.

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.

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, or 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.
Student Services, Activities, Rights, and Responsibilities

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 computertadaptations. For assistance, phone (831) 479-6379 or (831) 479-6370 or fax (831) 479-6395,TTY (831) 479-6421. Located in Library, upstairs.

BOOKSTORE

The Cabrillo College Bookstore is located on the ground level of the Student Activities Center. It rents and sells new and used textbooks for Cabrillo courses, with rental books saving students up to 60%. Digital versions of the textbooks are available for the majority of textbooks with savings up to 60%. The bookstore also sells reference books, art supplies, medical supplies, school supplies, snacks, coffee, gifts, and clothing. Textbooks are available for purchase at the beginning of each term in store and on the web at: Cabrillo.bcno/college. The Bookstore is open Monday-Thursday, 7:45a.m.–6:30p.m., Friday, 7:45a.m.–3:00p.m., and extended hours the first week of instruction.

TEXTBOOKS AND SUPPLIES

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

CABWORKS

Cabrillo Work Opportunity and Readiness to Kids (CABWORKS) is a state and county funded program available to students who are receiving cash aid county assistance for low income families with dependents. CABWORKS 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 funding 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. CABWORKS is located in the Student Resource & Support Network, SAC West 101 or call (831) 479-6344.

CHILDREN’S CENTER

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, developmentally 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 (PTC) 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 quality care and educational services for children and its employees. 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 behaviors 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 Children’s Center website at: http://www.cabccollege.com/Center/ChildrenCenter/philosophy.html. The Children’s Center is supported by state, federal and private grants, and by parent fees. The Mango Lynn Trombetta Infant Center, the Toddlers 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 eligibility by filling out the necessary paperwork at 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) 479-6532 for information.

COMMUNICATIONS

No telephone messages for students will be accepted by the College, and no telephone messages are acceptable for staff. Any communication is to be done only via email or in person. Would you like to talk to a counselor? Call us, stop by the Counseling Center, or email the college at: counseling@cabccollege.com. The Counseling Department can be reached 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, portfolio development, and other topics as needed. Counselors help students with self-exploration, personal development, decision making, and career/life planning. Counselors assist students who are interested in 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-years 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 about academic counseling for four-year colleges 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,
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 funds available 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, age 18 or older, and must maintain the Standards for Satisfactory Academic Progress (SAP).

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 they completed. Students who receive federal financial aid (Pell, FSEOG, or Direct Loans) must notify the Financial Aid and Scholarships Office at least 10 days in advance of the withdrawal date. Students who apply annually by March 2 are given priority consideration. The application deadline is generally in early February. Additional Extended Opportunity Program and Services (EOPS) and CalWORKS funds are available to eligible students who are single heads of households with children up to 14 years of age currently receiving CalWORKS.

The Financial Aid and Scholarships Office is notified, or an enrollment Form to the appropriate school at least 10 days in advance of the 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, average awards range from $570 to $5608 for full-time study.

Federal Supplemental Educational Opportunity Grant (FSEOG)
These funds are awarded to students who have the highest need. Students who receive 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 eligible students. Awards are made on a first-come, first-serve basis to eligible students. The average award is $400.

Student Health Services (SHS)
Student Health Services provides a variety of medical, personal counseling, and public health information services in Room Rose II (next to the Cabrillo College Student Health Services office) on the 2nd floor of the Student Resource Center on the Watsonville campus. For common illnesses, minor injuries, and for the monitoring of chronic conditions (such as diabetes, asthma, or epilepsy), care is provided by registered nurses and family nurse practitioners. SHS provides brief stress-based counseling with the goal of maximizing personal success. Counseling services are offered to students coping with stressful factors 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 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 correctional personnel killed in the line of duty, or have been designated to a four-year California college, students receive tuition assistance in amounts from $500 to $2,500. Awards are made on a competitive basis to those students who did not receive entitlements and are not guaranteed.

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 of students, enriched educational experiences for 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 scholarships will benefit from priority admission and/or a competitive edge in the admissions/transcript process depending upon the college to which Cabrillo students transfer. Students are encouraged to complete the Cabrillo Honors Transfer Program application to the Cabrillo Honors Transfer Program. Direct Loans are a form of financial aid and must be repaid with interest. Direct Loans are available as well.

Health and safety, and wellness enhancement are a major focus for the SHS staff—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 Cabrillo students and faculty.

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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 a part of the student fee. Students may request to be removed from the insurance plan by completing a withdrawal form during the first 14 days of the registration period. The coverage is non-transferable.

**INSURANCE**

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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, Room 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 weekly 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;
- Events throughout the semester to motivate and inspire, such as the Science Olympiad 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 success in transferring to a four-year institution:

- 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 conferences and meetings;
- 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 visit our website shortcut: 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/assistance for many departments are available here, such as the Academic Support Center, Veteran’s Services, Learning Skills, Student Resource and Support Network, 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 providing part-time employment for students who have been academically classified as students with employees in the community, including many departments on the Cabrillo campus. The Student Employment Office provides access to on-campus jobs, such as those in the Library, the Apts CTC (Building 1400), Watsonville CTC (Room WAT310), and the Watsonville ILC (Room WAT421).

STUDENT RESOURCE & SUPPORT NETWORK (SRSN)

The Student Resource & Support Network is a one-stop center providing support 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 health and wellness education.

The Student Resource & Support Network office is located in Room SAC West 110, street level, and is open Monday-Thursday 8:00 a.m.-2:00 p.m., and Friday 8:00 a.m.-1:00 p.m. Students are encouraged to drop by for more information. The Network provides space, study, academic counseling, peer advising, job retention and financial literacy workshops, resource and referral workshops, research, college planning, and advocacy agencies, and program-specific support. Call (831) 479-6434. See our website and blog at www.cabrillo.edu/services/srsn/.

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, Title IX of the Education Amendments Act of 1972, and Section 504 of the Rehabilitation Act of 1973, the Cabrillo Community College District 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 he or she has 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 describes the procedures for student rights and responsibilities is available in the Office of the Dean, 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 plagiarism), demonstrating respect for faculty, administration, staff, and all Cabrillo College community members. All Cabrillo College students have the responsibility 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 and workshops for students who have experienced a stroke or other physical limitations such as mobility, fitness skills, adaptation, problem solving, and oral and written communication skills. Students enrolled in the program do not need to be clinically assessed to participate; however, less they are working toward 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 physicians approval will be required. Call (831) 479-4477-3300 for enrollment information or check the 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 activities. Resources are published in the Transfer/Career Center 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 match their interests and abilities. The Cabrillo Transfer/Career Center is available to help students develop educational and career plans, including entry into career fields, occupational training, and transfer to four year universities. The Transfer/Career Center offers professional career planning, development courses in career planning, 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 Room A120, or call (831) 786-4774.

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 entered into a number of these. Students who are eligible may complete a TAG/TAU, which guar- antees admission when an agreement is both approved by the university and the student. Upon acceptance by multiple UC and CSU 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) 479-6724 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 volunteers are trained and certified.

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

WATSONVILLE INTEGRATED LEARNING CENTER

Staff at the Integrated Learning Center in room A210 on the second floor of the Watsonville Center provide tutoring in math, English and other subjects, labs in writing (ENG 100k) and reading, and assistance with various learning resources, including Supplemental Instruction. Students have access to computers and printing, copier, study space for core classes and other programs, a reference collection, and checkouts for laptops and reading mate- rials. Library cards are facilitated on site, as well as the checkout and return of materials from the Apts Library, DVIC, 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 disconnected workers with training and employment leading to employment 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 campuses and community services. WIOA is located in the Student Resource & Support Network, SAC West 110 or call (831) 479-6434.
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 transferrable 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 Interssegmental 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 (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. 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./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./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, revising, 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:

- 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
- Identify premises, conclusions, claims, assumptions, and biases in one’s own argument as well as in the arguments of others
- Avoid errors in reasoning and unexamined assumptions and identify them in the arguments of others
- 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
- 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:

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

Area B-2 SCIENTIFIC INQUIRY - LIFE FORMS

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

Students will be able to:

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

Area B-3 SCIENTIFIC INQUIRY - LABORATORY SCIENCES

These courses are designed for students majoring 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. In some majors, a student may choose to earn either an Associate in Arts or an Associate in Science Degree.

Students will be able to:

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

Area D: SOCIAL SCIENCES

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

Students will be able to:

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

AMERICAN INSTITUTIONS REQUIREMENT

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

Area E: LIFELONG LEARNING AND SELF DEVELOPMENT

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

Students will be able to:

- Develop the abilities to synthesize course material, including theoretical frameworks and their applications
ARTS AND ASSOCIATE IN SCIENCE DEGREES:
with an emphasis in Interdisciplinary Studies. Students should see
identified by an official college transcript or by an appropriate score on the
ber system.
MUL TICUL TURAL STUDIES REQUIREMENT
Students will be able to:
ber diversity by studying under-represented ethnic and racial
Multicultural Requirement:
Area A: English Language, Communication and Critical Thinking A-1: English Language
Area D: Social Sciences
1) Select one U.S. History course from: History #1, #4H, #15A, #17A, #17B, #17E, #21A, #21AH, #21B, #29A, #29B
2) Select one U.S. Political Science course from: PS 1, 1H, 5
3) Select a third course from: Anthropology 22, #2H, #3, #6, #7, #8, #17, #30, Biographical/Biographical Studies 2; Communication Studies 7, #12, Early Childhood Education 3, #32, #52; Economics 1A, 1B, English #27A, #27B, Geography #2, #4, #5, Health Science 15, History 22A, #28A, #4H, #4H, #46A, #48, #49A, #49B, French #1, 2, 3, 10, German 1, 2, History 22A, #24, #28A, #4H, #48, #49A, #49B, French 1, 2, 3, 10, German 1, 2, History 22A, #24, #28A, #4H, #49B, #49, Italian 1, 2, 3, 10, Japanese 1, 2, 4, Music 1, 5, 6, 10, #11, #17A, #17B, #24, #27A, #27B, #27E, #27F, Italian 1, 2, 3, 10, Japanese 1, 2, 4, Music 1, 5, 6, 10, #11, #17A, 12; Women's Studies 1, #2, #5, 11, 13
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 (CAMP 20, 22); Psychology 33, 33ABC, 39ABC; Sociology 5; Women's Studies 1; DOD214 (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, NURU (CAHS), 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.
Catalog
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, NURU (CAHS), 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.
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Catalog
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, NURU (CAHS), or ECE departments.
Multicultural Requirement:
Choose one course marked with a # or ENGR 98A + 98B. This area may be double counted.
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1-10 units
Select from courses numbered 1-199.
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Catalog
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, NURU (CAHS), 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.
Catalog
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, NURU (CAHS), 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.
Catalog
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, NURU (CAHS), 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.
Catalog
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, NURU (CAHS), 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.
Catalog
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, NURU (CAHS), 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.
Catalog
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, NURU (CAHS), 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.
The following is required for all A.A.-T or A.S.-T degrees:

- Consult with a counselor when planning to complete the degree for a designated “high-unit” major. This degree may not be the best option for students after transfer to earn a bachelor’s degree (unless the major is a designated transfer major). Students must complete a minimum of 60 required semester units of (A.A.-T or A.S.-T) are guaranteed admission to the CSU system, but not to a UC institution. 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 are required in the major using the Catalog model program or the transfer requirements at www.assist.org as a guide.

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

## 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 (CSU’s) 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 for the 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. **Intergeneral Education Transfer Curriculum (IGETC)** for a B.A./B.S. Degree at 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 CSU system puts restrictions on the use of IGETC for some majors, check ASSIST (www.assist.org) or a Cabrillo college counselor for more information.

For each campus of the University of California, a student may complete the General Education Pattern specific to that campus. For additional information on General Education patterns, please consult with a Cabrillo counselor or downloadable patterns from the University of California. Cabrillo College occupational majors are listed alphabetically in this Catalog and are approved by the Program Chair.

### Transferable A.S. degrees are available in:

- Astronomy
- Biology
- Chemistry
- Computer Science
- Engineering
- General Science
- Geology
- Mathematics
- Physics

### Transfer students must also meet the admissions requirements of the 4-year transfer university.

Please see the handout in the Transfer/Career Center entitled “Essential Transfer Information” or follow the Combined Requirements for the IGETC A.A./A.S. or the Combined Requirements for the CSU GE A.A./A.S. These requirements are listed in the following pages of this Catalog.

### Transfer Requirements for UC & CSU

#### Transfer to the University of California (UC)

- 60 UC transferable semester units (minimum)
- 2.0 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 CabrilloCatalogand Schedule 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.

### Transfer to the California State University System

1. **California State University’s (CSU’s) 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 for the 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. **Intergeneral Education Transfer Curriculum (IGETC)** for a B.A./B.S. Degree at 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 CSU system puts restrictions on the use of IGETC for some majors, check ASSIST (www.assist.org) or a Cabrillo college counselor for more information.

For each campus of the University of California, a student may complete the General Education Pattern specific to that campus. For additional information on General Education patterns, please consult with a Cabrillo counselor or downloadable patterns from the University of California. Cabrillo College occupational majors are listed alphabetically in this Catalog and are approved by the Program Chair.

### Transfer Requirements for UC & CSU

#### Transfer to the University of California (UC)

- 60 UC transferable semester units (minimum)
- 2.0 minimum grade point average; most campuses are more selective and will require a higher grade point average. UC San Diego and Cal Poly San Luis Obispo require a 3.0 above to be competitive. Information on course transferability is included in each course description in the CabrilloCatalogand Schedule of Classes.

- One UC transferable college course in mathematics that has a pre-requisite of Intermediate Algebra or an approved pre-statistics course.
- One UC transferable college course in English composition.
- One critical thinking course.
- One course in Communication.

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.

### Transfer to the California State University System

1. **California State University’s (CSU’s) 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 for the 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. **Intergeneral Education Transfer Curriculum (IGETC)** for a B.A./B.S. Degree at 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 California State University. 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) and check the University of California Transfer 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 requires patience and frequent checking. 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.

### 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)
- 2.0 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 CabrilloCatalogand Schedule 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.

### 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 CabrilloCatalogand Schedule of Classes.

- One critical thinking course.
- One course in Communication.

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 re-

requirements for the California State University (CSU).

Option 1) The CSU General Education Requirements. These require-

ments 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 Require-

ments for the Associate Degrees/CSU GE requirements. This Associate Degree allows students to complete the admissions, general educa-

tion 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 Currivi-
mum (IGETC) is accepted at all campuses of both the California State University and the University of California provided the entire curricu-

 lum (39-42 units) is completed prior to transfer (please refer to the in-

formation about the Transferable Associate Degree/IGETC above). Stu-

dents should meet with a Cabrillo counselor to assist them in choosing their general education options.

Lower Division Major Preparation

To determine the lower division courses required for a specific camp-

us 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 post-

ed 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 prepara-

tion 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 lo-

cal course number. Thus, if a Schedule of Classes or Catalog lists a course bearing a C-ID number, for example CMM 110, students at that col-

lege can be assured that it will be accepted in lieu of a course bearing the C-ID CMM 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 transfer-
able courses students need as preparation for transfer. Because these course requirements may change and because courses may be mod-

ified and qualified for or deleted from the C-ID database, students should always check with a counselor to determine how C-ID design-

ated courses fit into their educational plans for transfer.

Students may consult the ASSIST database at www.assist.org for 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 the 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.vc.id.net/course_compare.html

COURSE CLASSIFICATION AND NUMBERING 1-99

Courses numbered 1 through 99 are baccalaureate level courses, car-

rying 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 uni-

versity 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-

lege courses to the UC system. UC approved courses are selected from courses in the 1 through 99 series. Cabrillo College indicates the trans-

fer status of each course in both the Catalog and Schedule of Classes.

100-199

Courses numbered 100 through 199 are intended as associate de-

gree, 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 non-transferable. 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 and towards meeting prerequisites for 100 level courses. These courses will not count in calculating the GPA for the associate degree.

500-599

Courses numbered 500 through 599 are noncredit courses, and 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 educa-

tion (Title 5, ACC/IE program definitions, Title 5 TOP code specifica-

ions ). For purposes of college organization, a program is composed of all the degrees and certificates offered by a specific academic de-

partment. CTE departments that offer separate programs accredited by different outside accrediting agencies are considered one depart-

ment 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 Assis-

tance 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 peo-

ple: 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, Cer-

tificates of Achievement, and non-transferable A.S. Degrees. These programs prepare students for immediate employment or job ad-

vancement. For a listing of Career Technology Education Certificate and Program Information page of this Catalog. For further information see the Catalog pages describing the program and contact the individ-

ual department offering the program or the Transfer/Career Center. Students seeking a Career Technology 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 ca-

re-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 re-

quired 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 Ed-

uation requirements, plus suggested electives to total a minimum of 60 units. All courses that count toward the Math and English compet-

cencies 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 ap-

pointment with a counselor to verify that they are eligible for gradua-

tion. A student may complete EITHER the major requirements in effect at the time of the student’s initial enrollment, if the student has main-

tained continuous enrollment since then (see Catalog Rights page 57), 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 hour-apartment, during the semester in which the student requests to complete the re-

quirements 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 Certifi-

cation, 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 grad-

uates with an associate degree or who complete a Certificate of Proficiency with a 3.0 to 3.49 grade point average (GPA). “Hon-

ors” 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 rec-

ognized as having achieved “High Honors.” “Honors Scholar” shall 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 partici-

pant in the Honors Transfer Program. See page 42 for more details.
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.csis.gtu.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.

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

- **A1** - Communication (3 units): COMM 1, 1H, 2, 10 (No AP or IB accepted)
- **A2** - English Language (3 units): ENGL 1A, 1AH, #14MC, #14MCH (No IB accepted)
- **A3** - Critical Thinking (3 units): ENGL 4, ENGL 2, 2H, 2MC, #2MCH, PHIL 10D, 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 A. English 1BMC does not meet Area A. 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, 8; CHEM 1A, 1B, 1PH, 3, 3L, 3LH, 5, 10, 12A, 12B, 12B1, 30B, 30B2, 32P; ENGR 3, 510, 10L, 15, 15C; GEOS 1L, 1L, 3; METEO 1, 1L; GEOL 10, 15, 20, 20E; OCEAN 10P; PHYS 2A, 28, 44, 48, 48C, 48D, 49, 50, 10L, 11S, 11, 12
- **B2** - Life Forms (3-5 units): ANTH 1, 1H, 1L*, BIO 4, 5*, 6*, 8A*, 9B* (BIO 1ABC), 11A*, 11B*, 11C*, 13A*, 31, PSYCH 4, 4B
- **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: GEOS 1L, ASTRO 3, 4, or 7 + ANTH 1H or 11L, BIOL 13A or 13AL, PHYS 10-10L
- **B4** - Quantitative Reasoning (3-5 units): BUS 9, (beg. F‘13) MATH 2, 3 (beg. F‘11), 4, 5A, 5B, SC 6, 7, 10, 12, 15, 18, PSYCH 2A *Note: Math courses have a prerequisite of Intermediate Algebra or higher-level math course.

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

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

- **C1** - Arts: AH 10, 11, 11H, 12, 13, 13H, 14, 16, 17, 19, 419, 20A, 20B, 25, 33, AP 15S, 35, #35H, 45 (beg. F‘16), #55, DANCE 1; MUS 1, 5, 6, 10, 11A, 11LA, 12, #13A, 77, 78, 9, 15A
- **C2** - Humanities: ASL(SL5) 1, 2, 3; ENGL 1B, 1BH, #18MC, 12A, 12B, 12C, 12E, 12F, 24A, 24BH, 27A, 27B, 30A, 30B, 34, 39, 440, #41A, #41B, 44A, 460, 48B, 49A, 49B, #4R 1, 2, 3, 10, GIMN 1, 2; HIS 2; KSTA 2A, 2B, 4, 4AH, 48, 4BH, 92, 92A, 92B, 92C, ITAL 1, 2, 3, 10; JAPAN 1, 2; PHIL 4; 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‘09). Students planning to attend SFSU or SJSU who did not take ENGL 1B are advised to take ENGL 1BMC. Students who completed the following courses F‘19 or earlier will receive general education credit in Area C: ART 2A, 4, 5, 7A, 8A, 9A, 24; MUS 17A, 19, 33A, 34, 35, 36, 38, 40, 46, 49, 51A, 54, 55, 58, 5B, 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.

AREA D: Social Sciences
Select three courses - No more than two courses may be counted from any single department.

- **D1** - Social Sciences: SOC 5, 15, 20, 25, 30, 35ABC; ECON 1A, 1B
- **D2** - Earth Sciences: GEOG 1, 2, 3, 4, 5, 6; MAR 1, 2
- **D3** - Law: LIT 2, 3, 4
- **D4** - Psychology: PSYCH 1, 1H, 2, 3, 5, 8, 9B, 10A, 10B, 12, 13, 14, 15, 16, 17, 18A, 18B

**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 11H/11H**.

*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:

- **E1** - Professional credit: BUS 9, (beg. F’13) MATH 2, 3 (beg. F’11), 4, 5A, 5B, SC 6, 7, 10, 12, 15, 18, PSYCH 2A
- **E2** - Community service: One course from any of the above areas that is marked with the # sign or COMM 14, ECE 52, ENGR 98A + 98B, WS 1; **DD214 (Military Credit)** *Students must have CSU GE FullyCertified. *Students must complete PSYCH 35, or 39 ABC to receive general education credit. Note: ECE 31, 55, 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.
- **E3** - Lifelong Learning and Self-Development: Select one course from each of the three sub-areas:
  - **E3A** - Artistic/Interdisciplinary Studies - 6 courses from a combination of Areas A, B4, C & D.
  - **E3B** - Multicultural Studies Requirement*** (not required for AA-T/AS-T degrees)

**Note:** One course from any of the above areas that is marked with the # sign or COMM 14, ECE 52, ENGR 98A + 98B, WS 1. 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 (18-30 UNITS)

F‘14, this emphasis is limited to Interdisciplinary Studies - 6 courses from a combination of Areas A, B4, C & D.

Courses may be used to satisfy both the major/emphasis and general education requirements, but will be counted only once for these purposes.

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 program model or the transfer requirements on www.csis.gtu.org as a guide.
COMBINED REQUIREMENTS FOR THE ASSOCIATE DEGREES AND THE IGETC (LAVENDAR)

UC Requirements for the IGETC A.A. Degree (2.4 GPA required):
1. 60 UC transferable units;
2. General Education-Complete IGETC Areas 1-5 plus the foreign language requirement;
3. Complete one multicultural course;
4. Major—see Major section below.
Note: GE and Major courses must be completed with a “C” or better.

CSU Requirements for the IGETC A.A. degree (2.0 GPA required):
60 CSU transferable units;
1. General Education – Complete IGETC Areas 1-5, to include Area 1C – Oral Communication;
2. Complete one multicultural course;
3. Major—see Major section below.
Note: GE and Major courses must be completed with a “C” or better.

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; CLP 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, 6, 7, 10, 12, 12H, 13, 18 (beg F’02), 23, PSYC 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, 12, 13, 14, 16, 17, 18, 19, 20A, 20B, 52, 53, AP #15, #15S, #33H, #45 (beg. F’16), #55; DANCE #1; MUS 1, 5, 6, 10, #11A, #11AH, #12, #12A, #12H, #13A, 77, #18, 9 Languages: ASL (SLS) 3; ENGL 1B, 1BH, #1BMCH, 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)

Area 4: Social & Behavioral Sciences: 3 courses from at least 2 disciplines or an interdisciplinary sequence. 3 semester/4 quarter units minimum each.
ANTHR #1, #1H, #2, #5, #6, #7, #8, #11, #12, #20, #22, #27A, #27B, GEOG 2, 4, 6, 10, 10H; HIST #2A, #2B, #27A, #27B; #27A, #27B; #49 (beg. F’04), #49S, #49T, #49U, 77, 80, 83, 91

Area 5: Physical and 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, #15L, #15S, GEOG 1, #1L, #3L, #3L; METEO 1, #1L; GEOH #10, #15, #20; OCEAN #10; PHYS #2A, #2B, #4A, #4B, #4C, #4D, #4L, #10, #10L, #10S, #11, #12
Biological Science (3-5 units): ANTH #1H, #1H, #1L, #1L, #1L, #1L, #1L, #1L, #1L, #1L, #1L, #1L

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

COMBINED REQUIREMENTS FOR THE ASSOCIATE DEGREES AND THE IGETC (LAVENDAR) CONTINUED

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 an * , 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 & 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 ofwww.csulb.edu pages may be taken for a “P” grade.

Degree, Graduation, and Transfer Information | 59
DEGREES AND CERTIFICATES

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<td>Bilingual/Bicultural Studies</td>
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<tr>
<td>Chemistry</td>
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<td>Computer Applications/Business Technology: Administrative Support</td>
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<td>Computer Information Systems: Computer Networking and System Administration</td>
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<tr>
<td>Construction and Energy Management: Construction Building &amp; Construction Codes</td>
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<td>Construction Business Management</td>
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<td>Dental Hygiene</td>
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<tr>
<td>Digital Media: Digital Media/Pro Media Publishing</td>
<td>A.S. Cert</td>
</tr>
<tr>
<td>Web Design</td>
<td>A.S. Cert</td>
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<tr>
<td>Web Development</td>
<td>A.S. Cert</td>
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<td>Early Childhood Education: Anti-Bias Curriculum</td>
<td>A.S./A.S.-T Cert</td>
</tr>
<tr>
<td>Bilingual Spanish/English Teaching</td>
<td>A.S./A.S.-T Cert</td>
</tr>
<tr>
<td>Children's Literacy Curriculum</td>
<td>A.S./A.S.-T Cert</td>
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<tr>
<td>Curriculum Planning</td>
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<tr>
<td>Early Childhood Education</td>
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<td>Early Childhood Education: Infant/Toddler Care</td>
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<td>Economics: Elementary Teacher Education</td>
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Engineering: Engineering General: A.S. |
Engineering Technology: A.S. Cert |
English | A.A./A.A.-T |
Environmental Science | A.S.-T |
General Education: CSU General Education Breadth | Cert |
IGETC General Education | Cert |
General Science: Geography | A.A./A.A.-T |
Geology | A.S./A.S.-T |
Health Science/Community Health: History | A.A./A.A.-T |
Horticulture: Agriculture Plant Science | A.S.-T |
General Horticulture and Crop Production | A.S. Cert |
Landscape Horticulture | A.S. Cert |
Human Services: General Practice | A.S. Cert |
Jounalism | A.A. Cert |
Kinesiology: A.A./A.A.-T Cert |
Liberal Arts & Sciences (Transfer): Interdisciplinary Studies | A.A. |
Liberal Arts & Sciences (Non-Transfer): Interdisciplinary Studies | A.A./A.S. |
Liberal Studies: See Education Mathematics | A.S./A.S.-T |
Medical Assisting: A.S. Cert |
Music | A.A./A.A.-T Cert |
Music Technology & Recording Arts | A.S. Cert |
Nursing: Philosophy | A.A.-T |
Physics | A.S./A.S.-T |
Political Science | A.A./A.A.-T |
Psychology | A.A./A.A.-T |
Public Safety: Administration of Justice | A.S.-T |
Criminal Justice | A.S. |
Fire Technology | A.A./A.S. |
Radiologic Technology: Sociology | A.A./A.A.-T |
Spanish | A.A./A.A.-T |
Theatre Arts/Drama: Women's Studies | A.A. |

Digital Media: Animation |
Computer Animation: Cinematography |
Creative Careers: Discovering Self-Directed Pathways Graphic Imaging |
Digital Photography: Motion Graphics |
Motion Media: Publication Design |
Web Design: Video Production |
Web Programming: Web Production |
Web Programming: Website Design |

Early Childhood Education: Creative Careers: Discovering Self-Directed Pathways |
Engineering Technology: Architecture Drafting & Design |
Civil/Urban Design |
Computer Aided Drafting & Design: Computer Animation |
Manufacturing Specialist |
Human Services: Sustainable and Organic Food Production |
Human Services: Drug and Alcohol Studies |
General Practice |
Kinesiology: Personal Trainer Certification |
Liberal 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 |
Dance: Vocal Performance |
Radiologic Technology: Computed Tomography |
Vernacular |
Theatre Arts/Drama: Creative Careers: Discovering Self-Directed Pathways |
Musical Theatre |
Technical Theatre |
Welding: Basic Welding |
Advanced Welding |
COME STUDY WITH US FOR AN EDUCATION THAT WILL WORK FOR YOU!

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
see Construction and Energy Management Department
Building Inspector, Public Works Inspector

Construction Management
see Construction and Energy Management Department
Contractor, Project Manager, Site Superintendent, Estimator

Culinary Arts and Hospitality Management
see Culinary Arts/Hospitality Management Department
Food Service Manager, Cook

Energy Management
see Construction and Energy Management Department
Contractor, Project Manager, Estimator, Installer

Early Childhood Education
see Early Childhood Education Department
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
see Horticulture Department

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

Journalism
see Journalism Department
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
see Welding Department
AWS–SCWI Senior Certified Welding Inspector
AWS–CWE Certified Welding Educator

BUSINESS & COMPUTERS
Accounting/Finance
see Accounting Department
Bookkeeping, Auditing, Tax/Payroll, Accounting, General Office, Self Employment

Administrative Support
see Computer Applications/Business Technology Department
Office Assistant, Receptionist, General Office

Architectural Drafting & Design
see Engineering Technology Department
Architectural Designer/Draftsperson, Architectural Intern

Business
see Business Department
Entry level and job advancement to middle management

Civil Survey Drafting & Design
see Engineering Technology Department
Civil Survey Designer/Draftsperson, Civil Survey Assistant

Computer Aided Drafting & Design
see Engineering Technology Department
CAD Operator, CAD/CAM Technician

Computer Animation
see Engineering Technology Department
Animation Artist, 3-D Designer/Draftsperson, Computer Animation Tech, Solid Modeler

Computer/Business Applications
see Computer Applications/Business Technology Department
Administrative Assistant, Customer Service, Office Administration

Computer Networking and System Administration
see Computer and Information Systems Department
Network Administrator, Network Technician, System Administrator, Information Security Specialist

Computer Science
see Computer Science Department
Computer Programming: C++, Java, Perl, Computer Engineering, Computer Science Software Engineering, Game Programming

Computer Support
see Computer and Information Systems Department
Technical Support, A+ Certification, Hardware and Software Support

Digital Imaging
see Digital Media Department
Digital Illustration, Digital Photo Editor, Photo Image Composer

Digital Publishing
see Digital Media Department
E-publishing, Digital Publishing, Illustrator, Graphic Designer, Digital Photographer

Digital Video
see Digital Media Department
Digital Video Producer and Editor

COMES 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
ACADEMY FOR COLLEGE EXCELLENCE
Business, English, and Language Arts Division
James Weckler, Division Dean
Division Office, Room 301
Ann Endriz, Program Director
e-mail: anendris@cabrillo.edu
Aptos Counseling: (831) 477-3201
Moor Park Counseling: (831) 477-3201
Watsonville Counseling: (831) 786-4734
http://www.cabrillo.edu/academic/division/

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 will discover new skills and use techniques to successfully complete your educational goals. Indepen-
dent 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 sup-
ported by five teachers in a full-time learning community. ACE curricu-
ulum 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 associ-
ate with a community of successful full-time students then please look into the ACE Program. ACE courses are described in the Digital Management Career Prepa-
ration department and see ACE’s website for more information:
http://www.cabrillo.edu/academic/ace/

Please see page 152 for program and course listings for DMCP.

ACOUNTING/FINANCE
Business, English, and Language Arts Division
James Weckler, Division Dean
Division Office, Room 301
Ann Endriz, Program Director
e-mail: anendris@cabrillo.edu
Aptos Counseling: (831) 477-3201
Moor Park Counseling: (831) 477-3201
Watsonville Counseling: (831) 786-4734
http://www.cabrillo.edu/academic/division/

Accounting/Finance Occupational Program

ACCOUNTING

Accounting A.S. Degree
Career Opportunities:
Accounting graduates set up accounting systems that allow busi-
nesses 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 re-
cords. 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 As-
sociate of Science degree in Accounting.

Learning Outcomes:
1. Develop, create, and maintain an accounting process and book-
keeping 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 - Level 1

Required Courses (3 units)

ACCT 1A Managerial Accounting .................. 4
ACCT 5A Income Tax I, Individual .................. 4
ACCT 199C Career Work Experience Education .... 0.5
BUS 9 Business Statistics .......................... 3
BUS 18 Business Law .................................. 4
BUS 20 Introduction to Business ................. 3
BUS 52 Business Communications .............. 3
BUS 60 International Business .................... 3
BUS 163 Global Business Management .......... 3
FIN 4 Money Management ........................ 4
FIN 10 Introduction to Investments .............. 4

Electives (5-6 Units) - Units (Any Course numbered 1-199)

3.5-4.5

TOTAL Units 60

*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 informa-
tion.

Accounting Certificate of Achievement

Learning Outcomes:
1. Develop, create, and maintain an accounting process and book-
keeping 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)

Units

ACCT 1A Financial Accounting ...................... 4
ACCT 6 Spreadsheet Accounting ................... 4
ACCT 16 Accounting Ethics ........................ 4
PHIO 10 Ethics ........................................ 3
ACCT 151A Introduction to Accounting .......... 3
CABT 102 10-Key Calculator ....................... 4
CABT 110A Computer Keyboarding Alphabet Keys .... 0.5
CABT 110B Computer Keyboarding Numbers/Symbols .... 0.5

TOTAL Units 13-16

Required Courses (3 units)

ENGL 100 Elements of Writing .................... 3
ENGL 1A/1AH/1AMC/1AMCH ........................ 3
CABT 157 Business and Technical Writing .......... 3

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 informa-
tion.

Bookkeeping Skills Certificate

Learning Outcomes:
1. Develop, create, and maintain an accounting process and book-
keeping system for a business organization.
2. Create, manage, and maintain records and financial statements for managers of a business organization.

Core Courses - Level 1

ACCT 151A Introduction to Accounting: Bookkeeping Concepts .................. 4
BUS 5 Business Information Systems ............. 4
CABT 110A Computer Keyboarding Alphabet Keys .... 0.5
CABT 110B Computer Keyboarding Numbers/Symbols .... 0.5
PHIO 10 Ethics ........................................ 3

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 informa-
tion.

Accounting Courses

ACCT 1A Financial Accounting .......... 4
ACCT 6 Spreadsheet Accounting .............. 4
ACCT 16 Accounting Ethics .................... 4
PHIO 10 Ethics ........................................ 3
ACCT 151A Introduction to Accounting .......... 3
CABT 102 10-Key Calculator ....................... 4
CABT 110A Computer Keyboarding Alphabet Keys .... 0.5
CABT 110B Computer Keyboarding Numbers/Symbols .... 0.5

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 informa-
tion.

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.
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: Non-transferable.

ACCT 151A Introduction to Accounting: Bookkeeping Concepts
4 units; 4 hours Lecture, 1 hour Laboratory
Repeatable: 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
Repeatable: 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 159 Using QuickBooks
3 units; 3 hours Lecture, 1 hour Laboratory
Prerequisite: ACCT 151A.
Repeatable: 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.

ACCT 163 Introduction to Investments
4 units; 4 hours Lecture
Prerequisite: ACCT 1A.
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.

ACCT 164 Using QuickBooks
3 units; 3 hours Lecture, 1 hour Laboratory
Prerequisite: ACCT 151A.
Repeatable: May be taken a total of 1 time.
Provides instruction on strength, endurance, flexibility, balance, 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 79 Integrated Dance: Dance for All Bodies and Abilities
0.5 – 2 units; 0 hour Lecture, 1 – 4 hours Laboratory
Repeatable: 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.

FIN 4 Money Management
4 units; 3 hours Lecture, 2 hours Laboratory
Recommended Preparation: BUS 155.
Repeatable: 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.

FIN 10 Introduction to Investments
4 units; 3 hours Lecture, 2 hours Laboratory
Recommended Preparation: Eligibility for MATH 154.
Repeatable: 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.

FIN 45 Personal Finance
4 units; 3 hours Lecture, 3 hours Laboratory
Repeatable: May be taken a total of 1 time.
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)
Apts Counseling: (831) 479-6274 for appointment
Watsonville Counseling: (831) 786-4734
Call (831) 479-6266 for more information
http://www.cabrillo.edu/programs

ADAPT 92 Adaptive Tennis
0.5 – 1 units; 0 hour Lecture, 1 – 4 hours Laboratory
Repeatable: 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 94 Adaptive Tennis
0.5 – 1 units; 0 hour Lecture, 1 – 3 hours Laboratory
Repeatable: 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 95 Adaptive Yoga
0.5 – 2 units; 0 hour Lecture, 1 – 4 hours Laboratory
Repeatable: 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.

ADAPT 96 Adaptive Bowling
0.5 – 2 units; 0 hour Lecture, 1 – 4 hours Laboratory
Repeatable: 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 98 Adaptive Exercise: Exercise and Fitness-Adaptive
0.5 – 2 units; 0 hour Lecture, 1 – 4 hours Laboratory
Repeatable: 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 the student’s unique needs.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity courses combined: maximum credit-4 units.

ADAPT 99 Adaptive Exercise: Exercise and Fitness-Adaptive
0.5 – 2 units; 0 hour Lecture, 1 – 4 hours Laboratory
Repeatable: 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 the student’s unique needs.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity courses combined: maximum credit-4 units.

ADAPT 99 Integrated Dance: Dance for All Bodies and Abilities
0.5 – 2 units; 0 hour Lecture, 1 – 4 hours Laboratory
Repeatable: 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.
ALH 101  A Review of Anatomy and Physiology
2 units; 2 hours Lecture
Prerequisite: BID 4 and BID 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 program 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 the students 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 and 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 Converging
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 

or

ANTHR 1H Honors Introduction to Anthropology: Biological 

Core Courses (13 Units)

ANTHR 1 Introduction to Anthropology: Biological 

or

ANTHR 1H Honors Introduction to Anthropology: Biological 

Electives (Transfer): 

(Apply Course Number-1 to 9) 

Total Units 60

Anthropology Courses

ANTHR 1 Introduction to Anthropology: Biological 

or

ANTHR 1H Honors Introduction to Anthropology: Biological 

ANTHR 1L Biological Anthropology Lab 

Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH. 

Elective 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 

Prerequisite: Completion of or concurrent enrollment in ANTHR 1. 

Hybrid Requisite: Completion of or concurrent enrollment in ANTHR 1. 

Presents 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 115L

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. 

Elective 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

Approved Electives (Choose 9 units)

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

PSYCH 1H Honors General Psychology 

3

SOC 1 Introduction to Sociology: Understanding Society 

3

SOC 1H Honors Introduction to Sociology: Understanding Society 

3

SOC 2 Contemporary Social Problems 

3

SOC 2H Honors Contemporary Social Problems 

3

Electives (Transfer): 

(Apply Course Number-1 to 9) 

Total Units 60

Note: All courses except ANTHR 13, ANTHR 26 and HDRT 2 are also CSU general education courses.
Repeatability: May be taken a total of 1 time.

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 19A Special Topics in Anthropology
1 – 3 units; 1 – 3 hours Lecture
Repeatability: May be taken a total of 1 time.

Examines 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 recording 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, UC.

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, 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 Graulity, Dean
Division Office, Room 1684
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

Associate Degree for Transfer
A Degree with a Guarantee

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 course 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 about the subject of art history and how it relates to the study of works of art. Students enrolled in art history courses learn about the subjects, forms, and purposes of art within each historical period that they study. They learn about the artists, the patrons, and the audiences who viewed the works of art. Students learn to accurately identify and describe the 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 History 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 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 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.

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 Art History):
1. Communication: Reading, Writing, Listening, Speaking and/or Convering
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)

AH 20A Survey of Prehistoric Through Medieval Periods
3 units
AH 20B Survey of Art from the Renaissance to the Present
3 units

ART 2A Drawing and Composition I
3 units

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

AH 16 Art of India and Southeast Asia
3 units
AH 17 Art of China, Korea and Japan
3 units
AH 19 Art of the Americas
3 units
AH 52 Latin American Art
3 units

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

List A

ART 2B Drawing and Composition II
3 units

List B

ART 28 Drawing and Composition I
3 units

ART 3 Art History I
3 units

ART 3B Introduction to Digital Media
3 units

ART 3A Life Drawing I
3 units

ART 3C Life Drawing II
3 units

ART 4 Beginning Design: Design and Color
3 units

ART 5 Beginning Design: 3 Dimensional Form
3 units

ART 7A Ceramics–Hand Building
3 units

ART 7B Ceramics–Wheel Forming
3 units

ART 34A Sculpture
3 units

ART 34B Sculpture: Direct Processes II
3 units

ART 37A Watercolor I
3 units

ART 37B Watercolor II
3 units

AP 9A Beginning Photography
3 units

AP 9B Intermediate Photography
3 units

DM 1 Introduction to Digital Media
3 units

Any beginning level Studio Art course

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

Any course not used from List A or List B above

List A

Any Art History course

List B

Any Anthropology course in CSU GE Area D

AP 15 History of Photography
3 units

BBS 32 Issues of Linguistic and Cultural Diversity in Education, History and Politics
3 units

ECE 32 Child, Family and Community
3 units
Art History | 74

GEOG 2  
Cultural Geography ......................... 3

GEOG 4  
World Regional Geography .................. 3

Any History Course  
JOURN 25  
Mass Communications ........................... 3

Any Philosophy course, except PHIL 12 or PHIL 49

PSYCH 1  
General Psychology ............................... 3

PSYCH 1H  
Honors General Psychology .......................... 3

PSYCH 6  
Introduction to Social Psychology .................. 3

PSYCH 8  
Introduction to Developmental Psychology ............... 3

PSYCH 31  
Introduction to Abnormal Psychology ................. 3

SOC 3  
Race, Ethnicity and Society .......................... 3

SOC 8  
Introduction to Latino/a Studies ...................... 3

WS 1  
Introduction to Women's Studies ..................... 3

WS 2  
Global Perspectives on Women and Gender ............... 3

WS 11  
Feminist Theories ....................................... 3

Any foreign language course (except ASL)

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

Total Units 60

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
3. Global Awareness: An appreciation of Scientific Processes, Global Systems and Cycles, and Arts

Model Program for Art History
An Associate Degree requires 60 units appropriate to your educational goal, to include 18 units of core 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 not be appropriate depending on your specific goal. Please see a counselor for advise on transfer to any 4-year institution.

A. A. General Education 30 Units

Art History Core Courses (6-12 Units)

AH 11  
Ancient Art ........................................... 3

or

AH 11H  
Honors Ancient Art .................................. 3

and

AH 12  
Middle Ages: Art/Mediterranean World & Europe (A.D. 300-1400) ......................... 3

and

AH 13  
Renaissance to 19th Century ......................... 3

or

AH 13H  
Honors Renaissance to 19th Century .................. 3

Modern Art ............................................. 3

or

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

and

AH 20B  
Survey of Art from the Renaissance to the Present ........................................... 3

Multicultural Art History Courses (6 Units) Units

AH 16  
Art of India and Southeast Asia .......................... 3

AH 17  
Art of China, Korea and Japan ........................... 3

AH 18  
Art in America to 1900 .................................... 3

AH 19  
Art of the Americas ....................................... 3

AH 52  
Latin American Art ........................................ 3

Art History Electives (3-6 Units) Units

AH 10  
Appreciation/Introduction to the Visual Arts .................. 3

AH 53  
Contemporary Art and Visual Culture ..................... 3

Studio Art Courses (6 Units) Units

ART 2A  
Drawing and Composition I ................................ 3

ART 4  
Beginning Design: Design and Color ....................... 3

ART 5  
Beginning Design: 3-Dimensional Form .................... 3

Recommended from Related Disciplines:  
Units

Four semesters of French or German, HIST 48L, 48H, AP 15, AP 45, and one multicultural course in history ......................... 3

Electives (Transfer):
(Any Course Numbered 1-99) ......................... 0-9

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

AP 79  
Creative Careers - Discovering Self Directed Pathways ........................................... 3

ART 79  
Creative Careers - Discovering Self Directed Pathways ........................................... 3

DANCE 79  
Creative Careers - Discovering Self Directed Pathways ........................................... 3

DM 79  
Creative Careers - Discovering Self Directed Pathways ........................................... 3

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 Workshop 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 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 11/11H 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 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.

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 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 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 120.

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 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 9 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-Columbian 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. 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 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; 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 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 practices, 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 both 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 vary or may not be appropri-
ate depending on your specific goal. Please see a counselor for advisement for transfer to any 4-year institution.
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 WAP 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 Outcome
Produce photographic images and short video projects utilizing digital imaging technology and basic lighting techniques.

Required Courses
AP 46A Digital Photography I ................................................... 3
AP 46B Digital Photography II .................................................. 3
AP 47 Lighting for Photography I .................................................. 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
AP 9A Beginning Photography ................................................. 3
AP 9B Intermediate Photography ............................................. 3
AP 15 History of Photography .................................................. 3
AP 42 Alternative Photograph Processes I ................................. 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
AP 15 History of Photography .................................................. 3
AP 55 The Moving Image: Experimental Film, Video, and New Media Art ...................... 3

Total Units 3-13

**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 BW, 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.
Provides an overview of visual principles for creating effective photo-graphic imagery. 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 ART 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, UC.

AP 32 Medium and Large Format Photography II
1 – 3 units; 0.67 – 2.01 hours Lecture, 1.33 – 3.99 hours Laboratory
Prerequisite: AP 38 or equivalent skills.
Hybrid Requisite: Completion of or concurrent enrollment in AP 98 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 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 40AZ Studies in Photography
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: AP 46A and AP 9B or equivalent skills.
Repeatability: May be taken a total of 1 time.
Exposes students to issues 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.
Continues the study of 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 51L.
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 47 or equivalent skills.
Hybrid Requirement: Completion of or concurrent enrollment in ART 51L.
Recommended Preparation: ART 47 and AP 42 or equivalent skills.
Repeatable? May be taken a total of 3 times.
Teaches expressive image-making through in-depth investigations of selected historical, contemporary, experimental, non-traditional, and liberal photographic processes. Emphasizes hands-on discovery, conceptual and technical refinements, portfolio building, and preservation 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: Completion of or concurrent enrollment in ART 50L.
Repeatable? May be taken a total of 1 time.
Teaches expressive image-making through in-depth investigations 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**
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: AP 47 or equivalent skills.
Hybrid Requirement: Completion of or concurrent enrollment in ART 51L.
Recommended Preparation: AP 9B and AP 28 or equivalent skills.
Repeatable? 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 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
Repeatable? 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.
Repeatable? 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 artistic 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.

**Associate Degree for Transfer**

**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 during 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 requirements 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**

**Visual, Applied, and Performing Arts Division**
John Graulty, Division Dean
Division Office, Room VAPA 1007
Claire Thorson Department Chair, (831) 477-3700 x1244
Aptos Counseling: (831) 479-6274 for appointment
Watsonville Counseling: (831) 786-4734
Call (831) 479-6464 for more information
http://www.cabrillo.edu/programs

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>AP 9B</td>
<td>Survey of Art from the Renaissance to the Present</td>
</tr>
<tr>
<td>ART 2A</td>
<td>Drawing and Composition I</td>
</tr>
<tr>
<td>ART 43</td>
<td>Beginning Design: Design and Color</td>
</tr>
<tr>
<td>ART 5</td>
<td>Beginning Design: 3 Dimensional Form</td>
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<td>List A - Select one course from the following:</td>
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<tr>
<td>AH 20A</td>
<td>Survey of Art from Prehistoric Through Medieval Periods</td>
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<tr>
<td>AH 11</td>
<td>Ancient Art</td>
</tr>
<tr>
<td>AH 11H</td>
<td>Honors Ancient Art</td>
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<tr>
<td>AH 12</td>
<td>Middle Ages: Art/Mediterranean World (A.D. 300-1000)</td>
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<tr>
<td>AH 13</td>
<td>Renaissance to 19th Century</td>
</tr>
<tr>
<td>AH 13H</td>
<td>Honors Renaissance to 19th Century</td>
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<tr>
<td>AH 14</td>
<td>Modern Art</td>
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<td>List B - Select 9 units from the following:</td>
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<tr>
<td>ART 28</td>
<td>Drawing and Composition II</td>
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<tr>
<td>ART 3A</td>
<td>Life Drawing I</td>
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<tr>
<td>ART 3B</td>
<td>Life Drawing II</td>
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<tr>
<td>ART 7A</td>
<td>Ceramics-Hand Building</td>
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<tr>
<td>ART 7B</td>
<td>Ceramics-Wheel Forming</td>
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<tr>
<td>ART 8A</td>
<td>Small Scale Metal/Jewelry</td>
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<tr>
<td>ART 11A</td>
<td>Beginning Casting: Small Scale Metal/Jewelry</td>
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<tr>
<td>ART 21</td>
<td>Textile Surface Design</td>
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<td>ART 27</td>
<td>Graphic Design</td>
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<tr>
<td>ART 28</td>
<td>Lettering/Typography</td>
</tr>
<tr>
<td>ART 31A</td>
<td>Painting I</td>
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<tr>
<td>ART 31B</td>
<td>Painting II</td>
</tr>
<tr>
<td>ART 32A</td>
<td>Printmaking: Etching and Intaglio</td>
</tr>
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<td>ART 33A</td>
<td>Screen Printing/Serigraphy</td>
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<td>ART 34A</td>
<td>Sculpture: Direct Processes I</td>
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<td>ART 34B</td>
<td>Sculpture: Direct Processes II</td>
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<td>ART 35</td>
<td>Sculpture: Casting</td>
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<td>ART 37A</td>
<td>Watercolor I</td>
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<td>ART 37B</td>
<td>Watercolor II</td>
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<td>AP 6</td>
<td>Introduction to Digital Photography</td>
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<td>AP 9A</td>
<td>Beginning Photography</td>
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<tr>
<td>AP 9B</td>
<td>Intermediate Photography</td>
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</table>

Additional information and requirements for the Associate in Arts Degree for Transfer can be found in the Cabrillo College Catalog. For more information, please contact the Associate in Arts Degree for Transfer Chair, (831) 477-3700 x1244.
### 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 fit the 6 unit requirement.

#### Art History Option 1 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
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<td>Survey of Art from Prehistoric Through Medieval Periods</td>
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#### Art History Option 2 Units

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<th>Course Title</th>
<th>Units</th>
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<tbody>
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<td>AH 10</td>
<td>Ancient Art</td>
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<td>or</td>
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<tr>
<td>AH 11H</td>
<td>Honors Ancient Art</td>
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<td>or</td>
<td></td>
<td></td>
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<tr>
<td>AH 12</td>
<td>Middle Ages: Art/Medieval World &amp; Europe (A.D. 300-1400)</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AH 13</td>
<td>Renaissance to 19th Century</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AH 13H</td>
<td>Honors Renaissance to 19th Century</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AH 14</td>
<td>Modern Art</td>
<td>3</td>
</tr>
</tbody>
</table>

#### Studio Art Options (9 units) Units

Select 9 units from the following options:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 21</td>
<td>Textile Surface Design</td>
<td>1-3</td>
</tr>
<tr>
<td>ART 22A</td>
<td>Fiber Arts: Textile, Fiber, Paper</td>
<td>1-3</td>
</tr>
<tr>
<td>ART 29</td>
<td>Textile Surface Design and Structures</td>
<td>1-3</td>
</tr>
<tr>
<td>ART 30A</td>
<td>Life Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>ART 30B</td>
<td>Life Drawing II</td>
<td>1-3</td>
</tr>
<tr>
<td>ART 49</td>
<td>Alternative Drawing Processes</td>
<td>1-3</td>
</tr>
<tr>
<td>ART 82</td>
<td>Perspective Drawing</td>
<td>1-3</td>
</tr>
</tbody>
</table>

#### Ceramic Option Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<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 17A</td>
<td>Intermediate Hand Building - Ceramics</td>
<td>1-3</td>
</tr>
<tr>
<td>ART 27A</td>
<td>Ceramics Process I</td>
<td>3</td>
</tr>
<tr>
<td>ART 72B</td>
<td>Ceramics Process II</td>
<td>3</td>
</tr>
<tr>
<td>ART 75</td>
<td>Surface Decorations in Ceramics</td>
<td>1-3</td>
</tr>
</tbody>
</table>

#### Fiber Arts Option Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 91</td>
<td>Public Art - Ceramics Tile and Mosaic</td>
<td>3</td>
</tr>
</tbody>
</table>

#### Drawing Option Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 31A</td>
<td>Painting I</td>
<td>1</td>
</tr>
<tr>
<td>ART 31B</td>
<td>Painting II</td>
<td>3</td>
</tr>
<tr>
<td>ART 27A</td>
<td>Watercolor I</td>
<td>3</td>
</tr>
<tr>
<td>ART 41A</td>
<td>Figure Painting</td>
<td>1-3</td>
</tr>
<tr>
<td>ART 48</td>
<td>Two Dimensional Mixed Media</td>
<td>1-3</td>
</tr>
<tr>
<td>ART 91</td>
<td>Public Art - Painting and Mural</td>
<td>1-3</td>
</tr>
</tbody>
</table>

### Electives: (Any Course Numbered 1-99) 0-5

### Total Units 60

#### Core Courses (12 units)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course 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 2B</td>
<td>Drawing and Composition 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 6</td>
<td>Beginning Design: 3 Dimensional Form</td>
<td>3</td>
</tr>
</tbody>
</table>

#### A.A. General Education 30 Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 88</td>
<td><em>Starting and Operating a New Small Business</em></td>
<td>3</td>
</tr>
<tr>
<td>BUS 89</td>
<td>Printed WAF only cohort offering, typically offered every spring term</td>
<td>3</td>
</tr>
</tbody>
</table>

### Printmaking Option Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</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</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>3</td>
</tr>
<tr>
<td>ART 74</td>
<td>Monoprint and Monotype Printmaking</td>
<td>1-3</td>
</tr>
</tbody>
</table>

### Sculpture Option Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</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>
</tr>
</tbody>
</table>

### Woodworking Option Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 25A</td>
<td>Beginning Woodworking/Furniture</td>
<td>1-3</td>
</tr>
<tr>
<td>ART 25B</td>
<td>Intermediate Woodworking/Furniture</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>
<td>1-3</td>
</tr>
</tbody>
</table>

### Additional Courses

- BUS 88 *Starting and Operating a New Small Business* 3
- BUS 89 Printed WAF only cohort offering, typically offered every spring term 3
- Any AH/AP/ART/DANCE/DM/MUS/TA course 1-99 1-4

### Total Units 11-13

### 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

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 9A Survey of Digital Fabrication for Studio Arts 1-3

### Add one of the following courses

- CIS 15 Cloud Programming with Python 4
- CIS 71 Information & Communication Technology Essentials 4
- DM 4 Digital Graphics 4

### Total Units 43-44

### 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

- AH 79 Creative Careers - Discovering Self Directed Pathways 3
- or ART 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
- or BUS 88 *Starting and Operating a New Small Business* 3
ART Studio Courses

ART 1A Introduction to Art-making Practices
3 units; 3 hours Lecture
Repeatability: 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 51L.
Repeatability: 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
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.
Repeatability: 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.
Repeatability: 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 2A.
Hybrid Requisite: Completion of or concurrent enrollment in ART 51L.
Repeatability: May be taken a total of 1 time.
Continues development of fundamental skills of the representation of the human figure. Draws 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.
Repeatability: 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.
Repeatability: May be taken a total of 1 time.
Teaches design elements and principles used in 3-dimensional art-work 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.
Repeatability: 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.
Repeatability: 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 4 or ART 5.
Repeatability: May be taken a total of 1 time.
Introduces general topics in the fiber arts area such as paper making, 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 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 51L.
Recommended Preparation: ART 5.
Repeatability: May be taken a total of 1 time.
Continues the study of 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.

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.
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.

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 fee 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 transformation, dyeing and manipulating fibers and fabrics. Includes textile dyeing, printing, painting, stitching, assembling and embellishing. 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.
Introduces 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 fee 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 25B.
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 25D  Sculpture I: Drawing and Modeling
1 – 3 units; 0.67 – 2 hours Lecture, 1.33 – 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 the art and techniques of screen printing/serigraphy 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 26A  Fabrication I: Small Metal/Jewelry
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ART 2A.
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.
Recommended Preparation: ART 2A.
Repeatability: May be taken a total of 1 time.
Introduces the practice and art of fabrication for small metal and jewelry concepts. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC.

ART 26B  Fabrication II: Small Scale Metal/ Jewelry
3 units; 2 hours Lecture, 4 hours Laboratory
Hybrid Requisite: Completion of or concurrent enrollment in ART 51L.
Recommended Preparation: ART 2A.
Repeatability: May be taken a total of 1 time.
Continues the study of concepts and techniques of metal fabrication taught in ART 26A. Emphasizes the use of specialized equipment and materials to create small scale metal and jewelry concepts. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC.

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.
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 movable metal type to digital computer information. Materials fee may apply.
Transfer Credit: Transfers to CSU.

ART 28  Lettering/Typography
3 units; 2 hours Lecture, 4 hours Laboratory
Hybrid Requisite: Completion of or concurrent enrollment in ART 50L.
Repeatability: May be taken a total of 1 time.
Continues the study of concepts and techniques of metal fabrication taught in ART 26A. Emphasizes the use of specialized equipment and materials to create small scale metal and jewelry concepts. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC.

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
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 processes 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
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 metal fabrication taught in ART 26A. Emphasizes the use of specialized equipment and materials to create small scale metal and jewelry concepts. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC.

ART 31C  Painting III
3 units; 2 hours Lecture, 4 hours Laboratory
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 metal fabrication taught in ART 26A. Emphasizes the use of specialized equipment and materials to create small scale metal and jewelry concepts. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC.

ART 31D  Painting IV
3 units; 2 hours Lecture, 4 hours Laboratory
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 metal fabrication taught in ART 26A. Emphasizes the use of specialized equipment and materials to create small scale metal and jewelry concepts. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC.

ART 32A  Printmaking: Etching and Intaglio
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.
Continues the study of concepts and techniques of metal fabrication taught in ART 26A. Emphasizes the use of specialized equipment and materials to create small scale metal and jewelry concepts. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC.

ART 32B  Intermediate Intaglio Prints
3 units; 2 hours Lecture, 4 hours Laboratory
Hybrid Requisite: Completion of or concurrent enrollment in ART 51L.
Repeatability: May be taken a total of 1 time.
Introduces the art and techniques of screen printing/serigraphy 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 33A  Screen Printing/Serigraphy 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.
Continues the study of concepts and techniques of metal fabrication taught in ART 26A. Emphasizes the use of specialized equipment and materials to create small scale metal and jewelry concepts. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC.

ART 33B  Screen Printing/Serigraphy II
3 units; 2 hours Lecture, 4 hours Laboratory
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 metal fabrication taught in ART 26A. Emphasizes the use of specialized equipment and materials to create small scale metal and jewelry concepts. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC.

ART 34A  Sculpture: Direct Processes 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.
Continues the study of concepts and techniques of metal fabrication taught in ART 26A. Emphasizes the use of specialized equipment and materials to create small scale metal and jewelry concepts. Materials fee may apply.
Transfer Credit: Transfers to CSU; UC.

ART 34B  Sculpture: Direct Processes II
3 units; 2 hours Lecture, 4 hours Laboratory
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 metal fabrication taught in ART 26A. Emphasizes the use of specialized equipment and materials to create small scale metal and jewelry concepts. 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 35L.
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.

ART 36  Sculpture: Moldmaking
1 – 3 units; 0.67 – 2 hours Lecture, 1.33 – 4 hours Laboratory
Prerequisite: ART 35
Hybrid Requisite: Completion of or concurrent enrollment in ART 36L.
Repeatability: May be taken a total of 1 time.
Introduces molding technology with an emphasis on constructing armatures, bas-relief, waste, piece and flexible mold types using suitable materials in both positive and negative modes. 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 30L.
Recommended Preparation: ART 4
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.
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 31L.
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, polymer 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 RA.
Hybrid Requisite: Completion of or concurrent enrollment in ART 30L.
Recommended Preparation: ART 4 and ART 9
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 31L.
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 31L.
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 40A  Studies in Studio Art
1 – 3 units; 0.67 – 2 hours Lecture, 1.33 – 4 hours Laboratory
Prerequisite: ART 31.
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
Hybrid Requisite: Completion of or concurrent enrollment in ART 31L.
Recommended Preparation: ART 3A or ART 31A.
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.
Materials fee may apply.
Transfer Credit: Transfers to CSU, UC.

ART 43A  Printmaking
1 – 3 units; 0.67 – 2 hours Lecture, 1.33 – 4 hours Laboratory
Hybrid Requisite: Completion of or concurrent enrollment in ART 31L.
Recommended Preparation: ART 3A or ART 31A.
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, 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 31L.
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 30L.
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.

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 31L.
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 50  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 31L.
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 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
1 unit; 2 hours lecture, 4 hours laboratory
Hybrid Requisite: Completion of or concurrent enrollment in ART 30L.
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 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 31L.
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 technologies learned in ART 25A. Materials fees may apply.
Transfer Credit: Transfers to CSU.

ART 61A  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 31L.
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
1 unit; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ART 7B
Hybrid Requisite: Completion of or concurrent enrollment in ART 31L.
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/ideias) 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 Requirement: 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 coarse 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 Requirement: 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, UC.

ART 75 Surface Decoration in Ceramics
1 – 3 units; 0.67 – 2 hours Lecture, 1.33 – 4 hours Laboratory
Prerequisite: ART 7A.
Hybrid Requirement: Completion or concurrent enrollment in ART 53L.
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 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. Transfer Credit: Transfers to CSU, UC.

ART 82 Perspective Drawing
1 – 3 units; 0.67 – 2 hours Lecture, 1.33 – 4 hours Laboratory
Prerequisite: Completion of 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
Prerequisite: 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, UC.

ART 90 Methods of Art Presentation
1 – 3 units; 0.67 – 2 hours Lecture, 1.33 – 4 hours Laboratory
Prerequisite: Completion of or concurrent enrollment in ART 50L.
Recommended Preparation: ART 2A and/or ART 4.
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, UC.

ART 91 Public Art - Painting & Mural
1 – 3 units; 0.67 – 2 hours Lecture, 1.33 – 4 hours Laboratory
Prerequisite: ART 2A and/or ART 4.
Repeatability: May be taken a total of 1 time.
Focuses 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 Requirement: Completion of or concurrent enrollment in ART 50L.
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, UC.

ART 95A Survey of Digital Fabrication for Studio Arts
1 – 3 units; 0.67 – 2 hours Lecture, 1.33 – 4 hours Laboratory
Prerequisite: ART 9A.
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, UC.

ART 95B Beginning Digital Fabrication for Studio Arts
1 – 3 units; 0.67 – 2 hours Lecture, 1.33 – 4 hours Laboratory
Prerequisite: ART 9A.
Repeatability: May be taken a total of 1 time.
Introduces 3D modeling software as a tool for creative art making. Materials fee may apply. Transfer Credit: Transfers to CSU, UC.

ART 196A Beginning 3D Modeling for Digital Fabrication in Art
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ART 91B.
Recommended Preparation: 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 Requirement: 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. Materials fee may apply. Transfer Credit: Non-transferable.

ASTRONOMY
Natural and Applied Sciences Division
Jamie Alonso, Division Dean
Division Office: B-122
701 Rick Nollthiemus, Program Contact, (831) 479-6506
Aptos Counseling: (831) 479-6274 for appointment
Watsonville Counseling: (831) 786-4734
(831) 479-6238 for more information
Watsonville Counseling: (831) 786-4734
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 positions in observatories, 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 agencies, 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 astronau, space engineer, space scientist, or community college instructor, enter a teacher credential program, work at support position in observatories, other related fabrication technologies. Materials fee may apply.

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 astronomy. 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 “astronomer” and “astrophysicist” 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 Cabrillo's 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 is 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 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. This degree may be completed as a transferable Associate in Science degree with the addition of 3 units of general education requirements.

A.S. General Education 21 Units

- 3 units; 3 hours Lecture
- 3 units; 3 hours Lecture
- 1 unit; 3 hours Laboratory
- 1 unit; 3 hours Laboratory
- 1 unit; 3 hours Laboratory
- 1 unit; 3 hours Laboratory

Approved Electives (2 units) Units

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<thead>
<tr>
<th>Unit</th>
<th>Title</th>
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<tr>
<td>1.5</td>
<td>*Applies scientific principles to explain planetary atmospheres, climate in general and Earth's climate in particular, including current climate change causes and effects.</td>
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<td>1.5</td>
<td>Transfer Credit: Transfers to CSU, UC.</td>
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<td>1.5</td>
<td>Transfer Credit: Transfers to CSU.</td>
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Astronomy Courses

ASTRO 3 Solar System Astronomy

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 Stars, Galaxies, and the Origin of the Universe

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 the universe, 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 Requirement: 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 observation 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 8B Observational Astronomy

1 unit; 3 hours Laboratory

Repeatability: 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 9A Astrophotography

1.5 units; 1 hour Lecture, 2 hours Laboratory

Repeatability: 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 week-end trip for dark sky work.

Builds on skills from ASTRO 9A and 9B using 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 9B Astrophotography

2 hours Laboratory

Repeatability: 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

Repeatability: 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 27 Field Astronomy at the Pinnacles

1 unit; 1 hour Lecture, 0.5 hour Laboratory

Repeatability: 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 exploring 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

Repeatability: 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

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 competitive season.

Transfer Credit: Transfers to CSU, UC, with limits: Any or all ATH & KIN activity courses combined: maximum credit: 4 units.

ATH 11 Football Conditioning

0.5 – 3 units; 1 – 6 hours Laboratory

Repeatability: May be taken a total of 4 times.

Provides instruction in speed, agility, and strength for football conditioning.

Transfer Credit: Transfers to CSU, UC, with limits: Any or all ATH & KIN activity courses combined: maximum credit: 4 units.

ATH 15C Intercollegiate Athletics-Football

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; 9.7 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 15L 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 15M 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 15N Intercollegiate Athletics-Swimming: Men

3 units; 9.72 hours Laboratory

Repeatability: May be taken a total of 4 times.

For men interested in intercollegiate competition in swimming. 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: Women

3 units; 9.72 hours Laboratory

Repeatability: May be taken a total of 4 times.

For women interested in intercollegiate competition in swimming. 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 15U Intercollegiate Athletics-Basketball: Men

3 units; 9.7 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 15V Intercollegiate Athletics-Basketball: Women

3 units; 9.7 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 15W Intercollegiate Athletics-Volleyball: Men

3 units; 9.7 hours Laboratory

Repeatability: May be taken a total of 4 times.

For men 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 15X 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 15Y Intercollegiate Athletics-Football Theory and Practice: Defense

0.5 – 3 units; 1 – 6 hours Laboratory

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 16 Football Theory and Practice: Offense

0.5 – 3 units; 1 – 6 hours Laboratory

Presents the theory and practice of football-defense, 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

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.
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 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 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 off season skills development and conditioning for 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 Iniguez, 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/cultural-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 14 or 16 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 education goal, to include general education and at least 18 units in a major.

General Education:

A.A. General Education Core Courses (17-29 Units)

Total Units 60

B.B.S. 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.

Bilingual/Bicultural Studies Courses

Total Units 60
Biology A.S.-T Degree

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 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 for Transfer (A.S.-T), which is intended for students who want 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. Courses listed below may or may not be appropriate depending on your specific goal. Please see a counselor for advice.

IGETC for STEM for CSU

<table>
<thead>
<tr>
<th>Core Courses</th>
<th>General Education Requirements</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 9A Molecular, Cellular, and Animal Biology</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>BIO 9B Ecology, Evolution, and Plant Biology</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>CHEM 1A General Chemistry</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>CHEM 1B General Chemistry II</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>MATH 2A <strong>Physics for Life Sciences I</strong></td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>PHYS 2A <strong>Physics for Life Sciences II</strong></td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>or PHYS 4A Physics for Scientists and Engineers I</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>and PHYS 4B <strong>Physics for Scientists and Engineers II</strong></td>
<td>5</td>
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</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 not required for the core.**

- | Units |
- | Microbiology | 4 |
- | 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 |
- | MATH 5B Analytic Geometry and Calculus II | 5 |
- | MATH 12 Elementary Statistics | 5 |
- | MATH 12H Honors Elementary Statistics | 5 |
- | PSYCH 1H Honors General Psychology | 3 |
- | PSYCH 4 Introduction to Biological Psychology | 3 |

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/intraspecial 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

- BIO 400 **STEM Skills for Success**
- BIO 450 Applied Research in Biology

Biology Courses

**BIO 4 Human Anatomy**

4 units, 3 hours Lecture, 3 hours Laboratory
Hybrid Requirement: Completion of or concurrent enrollment in BIO 101.
Recommended Preparation: MA 70 and MA 170B.
Repeatability: May be taken a total of 1 time.

**BIO 1A Human Anatomy**

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 an introduction to an expansion of subject area material through laboratory or directed reading.

Transfer Credit: Transfers to CSU UC, with limits: BIO 4 combined with BIO 5 and 13A + 13AL: maximum credit-2 courses. C-ID: BIDL 110B

**BIO 4A Human Anatomy Coordinated Studies**

1 unit, 3 hours Laboratory

**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 2L) or CHEM 30A or CHEM 32 or CHEM 1A.
Recommended Preparation: BIO 4.
Repeatability: May be taken a total of 1 time.

Presents an exploration of the functions of the various physiological systems and their underlying chemical basis. Functions of cells, tissues, organs and systems are examined with respect to the human organism through lecture and laboratory. Designed for allied health students.

Transfer Credit: Transfers to CSU UC, with limits: BIO 5 combined with BIO 4 and 13A + 13AL: maximum credit-2 courses. C-ID: BIDL 120B

**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 2L) or CHEM 30A or CHEM 32 or CHEM 1A.
Hybrid Requirement: Completion of or concurrent enrollment in BIO 101.
Recommended Preparation: BIO 4.
Repeatability: May be taken a total of 1 time.

Presents a survey covering cell structure, metabolism, molecular genetics and growth, control, and the role of microorganisms in infectious diseases. Emphasis is on bacterial organisms, but includes eukaryotic microbes and viruses as well.

Transfer Credit: Transfers to CSU UC.
BIO 9A Molecular, Cellular, and Animal Biology
5 units; 3 hours Lecture, 6 hours Laboratory
Prerequisite: CHEM 1A.
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 1335

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 1335

BIO 11A General Biology
4 units; 3 hours Lecture, 3 hours Laboratory
Recommended Preparation: BIO 101.
Repeatability: May be taken a total of 1 time.
Prepares students to enter the natural sciences and related fields. Topics include the study of life. Emphasis is on fundamental biological principles and processes. 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 11A + BIO 11B = C-ID: BIOL 131

BIO 11B Marine Biology
4 units; 3 hours Lecture, 3 hours Laboratory
Recommended Preparation: BIO 11A.
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 11A. 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 Laboratory
Recommended Preparation: Eligibility for ENGL 100 or ESL 100 and READ 100.
Repeatability: May be taken a total of 1 time.
Introduces the study of the human body system 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 13A + BIO 13B = C-ID: BIOL 131

BIO 13B Biology of People-Anatomy and 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.
Provides the human and physiological laboratory experience associated with the theoretical content covered in 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 + BIO 13B combined with BIO 4A 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 challenge 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 18, 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 or CHEM 3L formerly identified as CHEM 2L or high school biology or equivalent or higher level chemistry course; BIO 11A or high school biology or equivalent or higher level biology course. Recommended Preparation: May be taken a total of 1 time.
Provides an introduction to the field of biotechnology and teaches fundamental skills required to obtain employment in biotechnology. Topics include career 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 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.
Prepares students for the higher skill level required by the biotechnology industry. Topics include DNA, RNA, and protein technologies, bioinformatics, plant and agricultural technologies, mammalian cell culture, medical biotechnology, and emerging biotechnologies. This is a follow-up course to BIO 41T. 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. Topics include samples, stains, microscope parts, 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
Teaches employability skills, scientific literacy, and analytical thinking for STEM majors.

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 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

For more information, visit www.cabrillo.edu/programs
3. Global Awareness: An appreciation of Scientific Processes, Global Systems and Civils, and Artistic Variety


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

Core Courses (18 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
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<tbody>
<tr>
<td>ACCT 1A</td>
<td>Financial Accounting</td>
</tr>
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<td>ACCT 1B</td>
<td>Managerial Accounting</td>
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<tr>
<td>BUS 5</td>
<td>Business Information Systems</td>
</tr>
<tr>
<td>BUS 9</td>
<td>Business Statistics</td>
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<tr>
<td>BUS 18</td>
<td>Business Law</td>
</tr>
<tr>
<td>BUS 20</td>
<td>Introduction to Business</td>
</tr>
<tr>
<td>BUS 60</td>
<td>International Business</td>
</tr>
<tr>
<td>ECON 1A</td>
<td>Introduction to Macroeconomics</td>
</tr>
<tr>
<td>ECON 1B</td>
<td>Introduction to Microeconomics</td>
</tr>
<tr>
<td>MATH 13</td>
<td>Finite Mathematics</td>
</tr>
<tr>
<td>MATH 18</td>
<td>Business Calculus</td>
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List A - Select one course from:

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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>BUS 9</td>
<td>Business Statistics</td>
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<td>MATH 12</td>
<td>Elementary Statistics</td>
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<tr>
<td>MATH 12H</td>
<td>Honors Elementary Statistics</td>
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<tr>
<td>MATH 13</td>
<td>Finite Mathematics</td>
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<td>MATH 18</td>
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List B - Select two courses from:

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<tr>
<th>Course</th>
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<tr>
<td>BUS 19</td>
<td>Business Introduction to Business</td>
</tr>
<tr>
<td>BUS 52</td>
<td>Business Communications</td>
</tr>
</tbody>
</table>

Total Units 60

*MATH 5A may be substituted for List A, only if accepted in the major by the specific destination CSU.

General Business A.A. 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
3. Global Awareness: An appreciation of Scientific Processes, Global Systems and Civils, and Artistic Variety

A.A. General Education 30 Units

Core Courses (Choose 20 units)

<table>
<thead>
<tr>
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<tbody>
<tr>
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<td>Business Information Systems</td>
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<td>BUS 9</td>
<td>Business Statistics</td>
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<td>BUS 18</td>
<td>Business Law</td>
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<td>BUS 20</td>
<td>Introduction to Business</td>
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<td>BUS 60</td>
<td>International Business</td>
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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>MATH 13</td>
<td>Finite Mathematics</td>
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<tr>
<td>MATH 18</td>
<td>Business Calculus</td>
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List A - Select one course from:

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<th>Course</th>
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<tbody>
<tr>
<td>BUS 9</td>
<td>Business Statistics</td>
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<td>MATH 13</td>
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<td>MATH 18</td>
<td>Business Calculus</td>
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List B - Select two courses from:

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<tbody>
<tr>
<td>BUS 52</td>
<td>Business Communications</td>
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</table>

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
3. Global Awareness: An appreciation of Scientific Processes, Global Systems and Civils, and Artistic Variety

A.S. General Education 21 Units

Core Courses (20 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 1A</td>
<td>Financial Accounting</td>
</tr>
<tr>
<td>BUS 5</td>
<td>Business Information Systems</td>
</tr>
<tr>
<td>BUS 18</td>
<td>Business Law</td>
</tr>
<tr>
<td>BUS 20</td>
<td>Introduction to Business</td>
</tr>
<tr>
<td>BUS 60</td>
<td>International Business</td>
</tr>
<tr>
<td>BUS 82</td>
<td>Marketing Principles</td>
</tr>
<tr>
<td>FIN 4</td>
<td>Money Management</td>
</tr>
</tbody>
</table>

Approved Electives (9 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 1B</td>
<td>Managerial Accounting</td>
</tr>
<tr>
<td>BUS 9</td>
<td>Business Statistics</td>
</tr>
<tr>
<td>BUS 50</td>
<td>Advertising for Small Business</td>
</tr>
<tr>
<td>BUS 52</td>
<td>Business Communications</td>
</tr>
<tr>
<td>BUS 67</td>
<td>Human Relations and Resources</td>
</tr>
<tr>
<td>BUS 88</td>
<td>Starting &amp; Operating a New Small Business</td>
</tr>
<tr>
<td>BUS 89</td>
<td>Starting &amp; Operating an eCommerce Business</td>
</tr>
<tr>
<td>BUS 199C</td>
<td>Career Work Experience Education</td>
</tr>
</tbody>
</table>

Electives:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Any Course numbered 1-199)</td>
<td>1-9</td>
</tr>
</tbody>
</table>

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. This 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:
1. Critically evaluate business plans and describe the processes required to establish, operate and measure the viability of a small business.
2. Assess and analyze costs and revenues of a small business.
3. 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:

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

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
3. Global Awareness: An appreciation of Scientific Processes, Global Systems and Civils, and Artistic Variety

General Business Occupational Core Courses (25 Units)

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>ACCT 1A</td>
<td>Financial Accounting</td>
</tr>
<tr>
<td>BUS 5</td>
<td>Business Information Systems</td>
</tr>
<tr>
<td>BUS 18</td>
<td>Business Law</td>
</tr>
<tr>
<td>BUS 20</td>
<td>Introduction to Business</td>
</tr>
<tr>
<td>BUS 60</td>
<td>International Business</td>
</tr>
<tr>
<td>BUS 82</td>
<td>Marketing Principles</td>
</tr>
<tr>
<td>FIN 4</td>
<td>Money Management</td>
</tr>
<tr>
<td>CABT 157</td>
<td>Business and Technical Writing</td>
</tr>
<tr>
<td>ENGL 100</td>
<td>Elements of Writing</td>
</tr>
<tr>
<td>ESSL 100</td>
<td>High Advanced Academic ESL</td>
</tr>
</tbody>
</table>

Total Units 28

Business Courses

BUS 5 Business Information Systems 4 units; 3 hours Lecture, 1 hour 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 e-business 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: MAT 142 or MAT 142B or MAT 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, PSYC 2A and BUS 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 and 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/1A1/4/4AMC/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.

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 and 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 101 Global Business Management
3 units; 3 hours Lecture
Repeatability: May be taken a total of 1 time. Introduces basic management principles, concepts and practices. Examines 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
Division Office, Room 701
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 transforma- tions of matter. 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 ma- jor 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 com- plete 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 be- fore 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 Converging
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving

Model Program for Chemistry

These Associate Degrees require 60 units appropriate to your educa- tional 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 pub- lic 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 in- creased general education requirements.

The department presents the following suggested Model Programs

Model Program for Chemistry
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.
Repeatability: May be taken a total of 1 time.

Presents a one semester survey of general and organic chemistry at a preparatory level 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/30B two semester sequence required for students transferring to some 4-year Nursing Programs - please see a counselor or check www.asist.org for more information. CHEM 32 also satisfies the Prerequisite requirement for BID 5 and BID 6.

COMMUNICATION STUDIES

Human Arts and Social Sciences Division
Paul Harvell, Division Dean
Division Office, Room 420
Department Chair, Vicki Fabbri, (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 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 1H Honors Public Speaking ................................................3
COMM 1H Honors Public Speaking ................................................3
通 or
COMM 1 Public Speaking .........................................................3

List A - Select 2 courses from: (6 units)

List B - Select 2 courses from: (6 units)

Any course not used from List A above or
COMM 10 Introduction to Communication Process ................................3
COMM 12 Intercultural Communication .........................................3
-listed may be taken a total of 1 time.
Prerequisite: MATH 152 or MATH 152A and MATH 152B.
Repeatability: May be taken a total of 1 time.

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Associate Degree for Transfer
A Degree with a Guarantee.

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 education-al goal, to include general education and at least 18 units in a major. Courses should be selected to meet the lower division major prepara-tion requirements at your intended transfer university; these specific requirements can be found at www.asist.org for 4-year public institu-tions 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 appropri-ate depending on your specific goal. Please see a counselor for advise-ment for transfer to any 4-year institution.

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

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The department presents the following suggested Model Program for this major. The courses listed below may or may not be appropri-ate depending on your specific goal. Please see a counselor for advise-ment for transfer to any 4-year institution.
### Communication Studies Courses

**COMM 1** Public Speaking

| Units | 3 hours Lecture | Prerequisite: 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

| Units | 3 hours Lecture | Prerequisite: Honors Standing. 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 2** Group Discussion

| 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 110 |

**COMM 4** Argumentation and Persuasion

| 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 5** Listening

| Units | 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 6** Communication Activities

| 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 7** Interpersonal Communication

| 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 10** Communication Process

| 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

| 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 130 |

**COMM 14** Health Communication

| 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 and other provider-provider 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 |

### A.A. General Education

<table>
<thead>
<tr>
<th>Units</th>
<th>30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Courses (13 Units)</td>
<td>3</td>
</tr>
<tr>
<td>COMM 1</td>
<td>Public Speaking</td>
</tr>
<tr>
<td>COMM 1H</td>
<td>Honors Public Speaking</td>
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<tr>
<td>COMM 2</td>
<td>Group Discussion</td>
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<td>COMM 6</td>
<td>Listening</td>
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<tr>
<td>COMM 10</td>
<td>Communication Process</td>
</tr>
<tr>
<td>COMM 12</td>
<td>Intercultural Communication</td>
</tr>
<tr>
<td>Electives (7 Units)</td>
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</tr>
<tr>
<td>COMM 4</td>
<td>Argumentation and Persuasion</td>
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<tr>
<td>COMM 5</td>
<td>Listening</td>
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<tr>
<td>COMM 6</td>
<td>Communication Activities</td>
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<tr>
<td>COMM 7</td>
<td>Interpersonal Communication</td>
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<td>COMM 10</td>
<td>Communication Process</td>
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<td>COMM 12</td>
<td>Intercultural Communication</td>
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<td>Electives (6 Units)</td>
<td>3</td>
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### Core Courses (13 Units) Units

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
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<tbody>
<tr>
<td>COMM 1</td>
<td>Public Speaking</td>
</tr>
<tr>
<td>COMM 1H</td>
<td>Honors Public Speaking</td>
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</tr>
<tr>
<td>COMM 12</td>
<td>Intercultural Communication</td>
</tr>
</tbody>
</table>

## Learning Outcomes

1. Competently communicate in support of a business office, including production and design of complex electronic and paper-based correspondence and documents. (GE Core Competency I. Communication, Competency II. Critical Thinking and Information Competency)

2. Competently communicate in support of a business office, including production and design of complex electronic and paper-based correspondence and documents. (GE Core Competency I. Communication, Competency II. Critical Thinking and Information Competency)

3. Use the Internet, a wide variety of current and emerging computer applications and standard business procedures to compute, analyze business performance, and solve problems. (GE Core Competency II. Critical Thinking and Information Competency)

4. Competently communicate in support of a business office, including production and design of complex electronic and paper-based correspondence and documents. (GE Core Competency I. Communication, Competency II. Critical Thinking and Information Competency)
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: Critical Thinking and Information Competency)

A.S. General Education 21 Units

CABT Core Courses (32.5-33.5 units)

CABT 31 Microsoft Word ................................. 3
CABT 38 Introduction to Micro Office……………… 3-4
CABT 41 Excel ................................................. 3
CABT 100 Business Technology & Procedures ………. 3
CABT 101 Computer Proficiency ........................ 3
CABT 102 10-Key Calculator ............................... 1
CABT 105 Records and Information Management ……….. 3
CABT 109 Customer Service and Human Relations ……….. 2
CABT 110A Computer Keyboarding-Alphabet Keys ……. 0.5
CABT 110B Computer Keyboarding-Numbers/Arrows ….. 0.5
CABT 110C Computer Keyboarding-Speed Development ….. 0.5
CABT 118 Using Microsoft Windows .............................. 1
CABT 121 Effective Presentations .............................. 3
CABT 156 Writing for the Workplace .............................. 3
CABT 157 Business and Technical Writing ........................... 3
CABT 160 Outlook and Internet for the Workplace ……….. 2

Total Units 38-39

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. 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 Core Courses (32.5 - 33.5 units)

CABT 121 Effective Presentations .............................. 3
CABT 135 Writing for the Workplace .............................. 3
CABT 151 Business and Technical Writing ........................... 3
CABT 157 Business and Technical Writing ........................... 3
CABT 160 Outlook and Internet for the Workplace ……….. 2

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
CABT 101 Computer Proficiency .............................. 3
CABT 110A Computer Keyboarding-Alphabet Keys ……. 0.5
CABT 110B Computer Keyboarding-Numbers/Arrows ….. 0.5
CABT 110C Computer Keyboarding-Speed Development ….. 0.5
CABT 156 Writing for the Workplace .............................. 3
CABT 157 Business and Technical Writing ........................... 3
CABT 160 Outlook and Internet for the Workplace ……….. 2

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
CABT 31 Microsoft Word ................................. 3
CABT 105 Records and Information Management ……….. 3
CABT 108 Social Media for Business ........................... 3.5
CABT 121 Effective Presentations .............................. 3
CABT 160 Outlook and Internet for the Workplace ……….. 2

Total Units 17.5

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.

Required Courses
CABT 31 Microsoft Word ................................. 3
CABT 105 Records and Information Management ……….. 3
CABT 108 Social Media for Business ........................... 3.5
CABT 121 Effective Presentations .............................. 3
CABT 160 Outlook and Internet for the Workplace ……….. 2

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
CABT 100 Business Technology & Procedures ……….. 3
CABT 108 Social Media for Business ........................... 3.5
CABT 161 Creating a Simple Web Site .............................. 3

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 required for completion introduce students to basic computer skills, library research, and web-based resources.

Learning Outcomes
1. 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
CABT 400 Digital Literacy I ................................. 3
LIBR 400 Digital Literacy I ................................. 3
CABT 401 Digital Literacy II ................................. 3
LIBR 401 Digital Literacy II ................................. 3

Beginning Technology Skills Certificate

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
1. 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 Apts and/or Watervliet Computer Technology Center (CTC).

Required Courses
CABT 405 Beginning Technology Skills I .............................. 3
CABT 406 Beginning Technology Skills II .............................. 3
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Lecture</th>
<th>Laboratory</th>
<th>Prerequisite/Recommended Preparation</th>
</tr>
</thead>
<tbody>
<tr>
<td>CABT 31</td>
<td>Microsoft Word</td>
<td>3</td>
<td>3 hours Lecture, 2 hours Laboratory</td>
<td>Prerequisite: CABT 110A or equivalent keyboarding experience; CABT 106 or equivalent computer experience. Recommended Preparation: CABT 101 or equivalent computer experience.</td>
<td></td>
</tr>
<tr>
<td>CABT 100</td>
<td>Business Technology &amp; Procedures</td>
<td>3</td>
<td>3 hours Lecture, 2.5 hours Laboratory</td>
<td>Prerequisite: CABT 110A and CABT 101 or CABT 38 or equivalent experience. Repeatability: May be taken a total of 1 time. Covers intermediate features of Microsoft Excel and Google Sheets, including collaboration on shared workbooks, advanced functions and tools for data analysis. May be offered in a Distance-Learning Format. Transfer Credit: Transfers to CSU.</td>
<td></td>
</tr>
<tr>
<td>CABT 101</td>
<td>Computer Proficiency</td>
<td>3</td>
<td>3 hours Lecture, 2 hours Laboratory</td>
<td>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). 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.</td>
<td></td>
</tr>
<tr>
<td>CABT 102</td>
<td>10-Key Calculator</td>
<td>1</td>
<td>3 hours Laboratory</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>CABT 41</td>
<td>Excel</td>
<td>3</td>
<td>3 hours Lecture, 2 hours Laboratory</td>
<td>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). 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.</td>
<td></td>
</tr>
<tr>
<td>CABT 43</td>
<td>Beginning/Intermediate Spreadsheets</td>
<td>2</td>
<td>2 hours Lecture, 1 hour Laboratory</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>CABT 105</td>
<td>Records and Information Management</td>
<td>3</td>
<td>3 hours Lecture, 1 hour Laboratory</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>CABT 106</td>
<td>Introduction to Computers at Cabrillo</td>
<td>0.5</td>
<td>0.5 hour Lecture</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>CABT 107</td>
<td>Applied Computer Skills</td>
<td>1.5</td>
<td>1.5 hours Lecture</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>CABT 108</td>
<td>Social Media for Business</td>
<td>3.5</td>
<td>3.5 hours Lecture, 2 hours Laboratory</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>CABT 109</td>
<td>Customer Service and Human Relations</td>
<td>2</td>
<td>2 hours Lecture, 1 hour Laboratory</td>
<td>Recommended Preparation: CABT 110A or equivalent skills. 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.</td>
<td></td>
</tr>
<tr>
<td>CABT 110A</td>
<td>Computer Keyboarding-Numbers/Keys</td>
<td>0.5</td>
<td>0.5 hours Laboratory</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>CABT 110B</td>
<td>Computer Keyboarding-Speed Development</td>
<td>0.5</td>
<td>0.5 hours Laboratory</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>CABT 110C</td>
<td>Computer Keyboarding-Alphabet Keys</td>
<td>0.5</td>
<td>0.5 hours Laboratory</td>
<td>Recommended Preparation: Completion of or concurrent enrollment in CABT 106 or equivalent computer skills. Recommended Preparation: Eligibility for MATH 154. Repeatability: May be taken a total of 1 time. Covers alphabetic keyboarding skills using the touch technique in a hands-on, self-paced format. Enrollment is permitted through the twelfth week of instruction. May be offered in a Distance-Learning Format. Pass/No Pass grading only. Transfer Credit: Non-transferable.</td>
<td></td>
</tr>
</tbody>
</table>
CABT 111 Using Speech Recognition Software
3 units; 3 hours Lecture
Recommended Preparation: CABT 101 or equivalent experience.
Repeatability: May be taken a total of 1 time.
Covers speech recognition software and 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 115 Writing for the Workplace
3 units; 3 hours Lecture
Recommended Preparation: CABT 110A or equivalent keyboarding skills.
Repeatability: May be taken a total of 1 time.
Provides instruction in the basics of workplace written communication. May be offered in a Distance-Learning Format. Transfer Credit: Non-transferable.

CABT 121 Effective Presentations
3 units; 3 hours Lecture
Recommended Preparation: CABT 101.
Repeatability: May be taken a total of 1 time.
Covers current presentation software and techniques for in-person presentations. May be offered in an Open Entry/Open Exit format. Transfer Credit: Non-transferable.

CABT 122 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.
Covers current application software and techniques for in-person and virtual presentations. May be offered in an Open Entry/Open Exit format. Transfer Credit: Non-transferable.

CABT 156 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, calendar, project management, and meeting scheduling, and Internet skills for the modern workplace. May be offered in an Open Entry/Open Exit format. Transfer Credit: Non-transferable.

CABT 161 Creating a Simple Web Site
3 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 mainstream and business technology not covered by regular catalog offerings. May be offered in an Open Entry/Open Exit format. Transfer Credit: Non-transferable.

CABT 190AZ Special Topics in Computer Applications/Business Technology
0.5 – 3 units; 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.
A.S. General Education

<table>
<thead>
<tr>
<th>Course (28 Units)</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 71 Information &amp; Communication</td>
<td>4</td>
</tr>
<tr>
<td>CIS 75 Fundamentals of Computer Security</td>
<td>3</td>
</tr>
<tr>
<td>CIS 81 Computer Network Fundamentals</td>
<td>4</td>
</tr>
<tr>
<td>CIS 82 Routing and Switching Essentials</td>
<td>4</td>
</tr>
<tr>
<td>CIS 90 Introduction to UNIX/Linux</td>
<td>3</td>
</tr>
<tr>
<td>CIS 174 Virtualization Infrastructure (VMware ICM)</td>
<td>3</td>
</tr>
<tr>
<td>CIS 194 Microsoft Windows Client Administration</td>
<td>3</td>
</tr>
</tbody>
</table>

And one of the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 11 Introduction to Programming Concepts and Methodology, C++</td>
<td>4</td>
</tr>
<tr>
<td>CIS 12J Introduction to Programming Concepts and Methodology, Java</td>
<td>4</td>
</tr>
<tr>
<td>CIS 19 Java Programming</td>
<td>4</td>
</tr>
<tr>
<td>CIS 20J Cloud Programming with Python</td>
<td>4</td>
</tr>
<tr>
<td>CIS 31 Perl Programming in a UNIX Environment</td>
<td>4</td>
</tr>
<tr>
<td>CIS 32 Introduction to Internet Programming</td>
<td>4</td>
</tr>
<tr>
<td>CIS 33 Introduction to Programming Database-Driven Websites With PHP</td>
<td>4</td>
</tr>
<tr>
<td>CIS 98 UNIX/Linux Shell Programming</td>
<td>4</td>
</tr>
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</table>

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 46 CCNA Security</td>
<td>4</td>
</tr>
<tr>
<td>CIS 54 Intro. to Database Management Systems</td>
<td>4</td>
</tr>
<tr>
<td>CIS 60A-ZZ Special Topics in Computer and Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>CIS 76 Introduction to Cybersecurity: Ethical Hacking</td>
<td>3</td>
</tr>
<tr>
<td>CIS 77 Computer Forensics Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>CIS 83 Switched Networks &amp; Connecting Networks</td>
<td>3</td>
</tr>
<tr>
<td>CIS 99C IPv6 Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>CIS 140NA Network Analysis using Wireshark</td>
<td>3</td>
</tr>
<tr>
<td>CIS 140SM Information Storage Management</td>
<td>3</td>
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<tr>
<td>CIS 185 Advanced Routing-Cisco CCNP ROUTE</td>
<td>3</td>
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<tr>
<td>CIS 187 Implementing IP Switching-Cisco CCNP SWITCH</td>
<td>3</td>
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<tr>
<td>CIS 188 Maintaining and Troubleshooting IP Networks-CCNP TSHOOT</td>
<td>3</td>
</tr>
<tr>
<td>CIS 191AB UNIX/Linux Installation, Configuration and Administration</td>
<td>4</td>
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<tr>
<td>CIS 192AB UNIX/Linux Network Administration</td>
<td>4</td>
</tr>
<tr>
<td>CIS 195 Microsoft Windows Server Administration</td>
<td>4</td>
</tr>
<tr>
<td>CIS 196 Microsoft Windows Server Advanced Configuration</td>
<td>4</td>
</tr>
<tr>
<td>CABT 156 Writing for the Workplace</td>
<td>3</td>
</tr>
<tr>
<td>CABT 157 Business and Technical Writing</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 networking 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)

<table>
<thead>
<tr>
<th>Course</th>
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</tr>
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<tbody>
<tr>
<td>CIS 71 Information &amp; Communication Technology Essentials</td>
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<td>CIS 81 Computer Network Fundamentals</td>
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</tr>
<tr>
<td>CIS 82 Routing and Switching Essentials</td>
<td>4</td>
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<tr>
<td>CIS 90 Introduction to UNIX/Linux</td>
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<tr>
<td>CIS 174 Virtualization Infrastructure (VMware ICM)</td>
<td>3</td>
</tr>
<tr>
<td>CIS 194 Microsoft Windows Client Administration</td>
<td>3</td>
</tr>
</tbody>
</table>

CCNP Requirements (13 Units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 82 Routing and Switching Essentials</td>
<td>3</td>
</tr>
<tr>
<td>CIS 83 Switched Networks &amp; Connecting Networks</td>
<td>3</td>
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</tbody>
</table>

CCNA Security (4 Units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 46 CCNA Security</td>
<td>4</td>
</tr>
</tbody>
</table>

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 1 Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>COMM 1H Honors Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>COMM 2 Group Discussion</td>
<td>3</td>
</tr>
<tr>
<td>COMM 10 Communication Process</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units: 31

Cybersecurity Skills Certificate

Program Description:
Helps prepare students for entry-level positions and industry certifications on 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 a networking knowledge base equivalent to obtaining CCNP certifications from Cisco Systems. (Communication, Critical Thinking, Global Awareness, Personal Responsibility and Professional Development)

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>CIS 75 Fundamentals of Computer Security</td>
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<tr>
<td>CIS 81 Computer Forensics Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>CIS 82 Switched Networks &amp; Connecting Networks</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Units: 13
COMPUTER SUPPORT
Natural and Applied Sciences Division
Jamie Alonzo, Division Dean
Division Office, Room 701
Michael Matena, Department Chair, (831) 477-3270
Aptos Counseling: (831) 479-6274 for appointment
Watsonville Counseling: (831) 786-4734
Call (831) 479-6238 for more information
http://www.cabrillo.edu/computer

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+ Preparatory, 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 CI 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)

Computer Support Certificate of Achievement
Learning Outcome: 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)

COMPUTER AND INFORMATION SYSTEMS
Bachelor of Science
Computer Science
Computer & Information Systems

A.S. General Education 21 Units

Core Courses (21 Units)

Units

CSIS 31 Perl Programming in a UNIX Environment .......................... 4
CSIS 32 Introduction to Internet Programming ........................................ 4
CSIS 33 Intro to Programming Database-Driven Websites with PHP .... 4
CSIS 46 CCNA Security ............................................................................. 4
CSIS 54 Intro to Database Management .................................................. 4

Total Units 15 A+ Preparation Skills Certificate
Prepares the student to take the Microsoft Certified Professional industry certification exams.

Learning Outcome: 1. Analyze symptoms of host software, hardware, or networking configuration errors. (Critical Thinking)

All skills certificates assume the successful completion of CS1 and CS 1L or equivalent skills.

Required Courses
CIS 31 Perl Programming in a UNIX Environment

Computer and 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: CI 11 or CS 121 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 Perl 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: CIS 60. Eligibility for MATH 154.
Repeatability: May be taken a total of 1 time.
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 12G or CS 32. Recommended Preparation: DM 60, Eligibility for MATH 154. Repeatability: 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 12G and MATH 152 or equivalent skills.
Repeatability: 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 12G and MATH 152 or equivalent skills.
Recommended Preparation: Eligibility for ENGL 100 or ESL 100 and READ 100.
Repeatability: 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.
Repeatability: 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 96.
Repeatability: May be taken a total of 1 time.
Introduces database management concepts and design patterns. Provides an introduction to database technology. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU, UC.

CIS 71 Information & Communication Technology Essentials
4 units; 4 hours Lecture, 1 hour Laboratory
Recommended Preparation: CS 1 and CS 1L or equivalent, Eligibility for MATH 154.
Repeatability: May be taken a total of 1 time.
Introduces the relationship between hardware and software and software development tools that may be used by companies and organizations. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

CIS 75 Fundamentals of Computer Security
3 units; 3 hours Lecture, 1 hour Laboratory
Prerequisite: CIS 81 or equivalent skills.
Repeatability: May be taken a total of 1 time.
Introduces computer security concepts and principles related to computer technology, security, and laws. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU, UC.

CIS 76 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.
Repeatability: May be taken a total of 1 time.
Introduces the various methodologies for attacking a network. Covers computer network security and the security methods used in a variety of organizations. 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. 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
Prerequisite: Completion of or concurrent enrollment in CIS 71 or equivalent skills.
Repeatability: May be taken a total of 1 time.
Provides an introduction to the computer hardware and software skills necessary for IT professionals. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

CIS 82 Routing and Switching Essentials
4 units; 4 hours Laboratory, 1 hour Laboratory
Prerequisite: CIS 81.
Repeatability: May be taken a total of 1 time.
Introduces the network routing protocols (Network Layer) of IPv4 and IPv6. 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.
Introduces the network layer protocols (Network Layer) of IPv4 and IPv6. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

CIS 84 Introduction to UNIX/Linux
3 units; 3 hours Lecture, 1 hour Laboratory
Recommended Preparation: CS 1L or CS 71, Eligibility for ENGL 100 or ESL 100 and READ 100.
Repeatability: May be taken a total of 1 time.
Provides a technical overview of the UNIX/Linux operating system, including virtual memory, processes, 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 98 UNIX/Linux Shell Programming
4 units; 4 hours Lecture, 1 hour Laboratory
Prerequisite: CS 90.
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: CS 81.
Recommended Preparation: CIS 82.
Repeatability: May be taken a total of 1 time.
Introduces IPv6 addressing and addresses types, dynamic IPv6 address assignment using SLAAC and DHCPv6, ICMPv6 Neighbor Discovery, routing IPv6, and securing an IPv6 network. Covers network infrastructure 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, monitoring, accessing, protecting, securing, 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 Lab
Transfer Credit: Non-transferable. 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 MAT 154
Repeatability: May be taken a total of 1 time.
Teaches installation, configuration, and management of virtual infrastructures. Covers virtualization of hardware, computing systems, and applications. Uses VMware ICM, Configure, and manages a virtual environment. 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 certification. 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 pass the CCNA exam or equivalent skills.
Repeatability: May be taken a total of 1 time.
Teaches monitoring, 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, VLANs, 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
Prerequisites: 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, managing file and file system structures, distributing and monitoring processes, starting and stopping the system for routine maintenance and troubleshooting, rebuilding and upgrading the kernel, configuring peripheral devices such as printers and modems, backing up and restoring files, and disaster recovery. Develops skills through using both graphical and command line user interfaces. 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 course examination 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 CompTIA Skill Certificate or to pass one of the exams required for both MCISA 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. Configures TCP/IP protocols, DHCP DNS, and Routing and Remote Access Services; manages secure, and troubleshoots Web, FTP, Certificate, and Terminal services and clients. Builds upon the operating system features learned in CIS 194 and CIS 195. Prepares for one of the exams required for MCISA certification. May be offered in a Distance-Learning Format.
Transfer Credit: Non-transferable.
C++ Programming Certificate of Achievement
The C++ Programming Certificate of Achievement is intended to meet the needs of students pursing academic and occupational disciplines where knowledge of the C++ programming language is required. These disciplines include, but are not limited to, computer science, computer engineering, digital media, computer networking, computer system administration, and engineering.
MATH 132 (Intermediate Algebra) is required for the beginning programing course (CS 11), and either completion of MATH 4 (Precalculus Algebra and Trigonometry) or the completion of the MATH 2/MATH 3 series (two-semester version of MATH 4) is required for the intermediate C++ programming course (CS 19).
Upon completion of the C++ Programming Certificate of Achievement, a student will have satisfied the following objectives:
- Design and implement C++ programs to solve problems of simple and moderate complexity using procedural and object-oriented methods.
- Correctly and effectively use the following C++ language elements: Classes and objects, structured data types such as arrays and files, operator overloading, inheritance, and polymorphism.
- Design and implement basic dynamic data structures including a Linked List.
- Write code that is well documented and exhibits clarity of expression through effective use of mnemonic identifiers, indentation, and comments.
- Apply the following software development principles and techniques: step-wise refinement, top-down and bottom-up design, incremental development, testing and debugging, information hiding, and data encapsulation.
- Develop C++ code in a command-line Unix environment using standard Unix tools, gcc compiler, emacs text editor, and gdb debugger.
- Design and implement C++ language programs to implement mathematical concepts such as statistical array value analysis, sets, trigonometric functions, simple geometry, and complex numbers.
- For the occupational student the body of work completed for this certificate represents the intermediate programming preparation necessary for an entry level programmers working in a technical support capacity.
- For the transfer student, completion of this certificate represents the first year courses within a four-year computer science program at most computer science majors and transfer universities.

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, computer system administration, bioinformatics, and engineering.
Learning Outcomes:
1. Demonstrate software development skills implementing 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)

Web Programming Fundamentals Certificate of Achievement
The Web Programming Fundamentals 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

CS 11I Introduction to Programming Concepts and Methodology, Java

CS 12GP Introduction to Programming Using Games and Simulations

CS 12J Introduction to Programming Concepts and Methodology, Java

CS 20J Java Programming

CS 31 Perl Programming in a UNIX Environment

CS 32 Introduction to Internet Programming

CS 33 Introduction to Programming Database-Driven Websites with PHP

MATH 154 Elementary Algebra

MATH 152 Intermediate Algebra

MATH 4 Precalculus Algebra and Trigonometry

MATH 2 Precalculus Algebra

MATH 3 Precalculus Trigonometry

COMM 2 Group Discussion

COMM 10 Communication Process

ENGL 1A/1AH/1AMC/TAMC

Total Units 12

Mobile Applications Skills Certificate

Program Description:
Prepares the student to create interactive and dynamic web pages using client-side and server-side programming languages.

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

CS 12J Introduction to Programming Concepts and Methodology, Java

CS 20J Java Programming

CS 31 Introduction to Internet Programming

CS 33 Introduction to Programming Database-Driven Websites with PHP

CS 34 Mobile Platforms-iPhone and Android

CS 35 Mobile Game Development

Total Units 16

Web Programming Fundamentals Skills Certificate

Program Description:
Prepares the student to create interactive and dynamic web pages using client-side and server-side programming languages.

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 11I Introduction to Programming Concepts and Methodology, Java

CS 12J Introduction to Programming Concepts and Methodology, Java

CS 12GP Introduction to Programming Using Games and Simulations

CS 20J Java Programming

CS 32 Introduction to Internet Programming

CS 33 Introduction to Programming Database-Driven Websites with PHP

CS 34 Mobile Platforms-iPhone and Android

Total Units 16

Computer Science Courses

CS 11 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 1L may be taken concurrently; Eligibility for MATH 154.

Repeatability: May be taken a total of 1 time.

Prepares the student to program at an intermediate level with emphasis on video game programming techniques.

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

CS 12J Introduction to Programming Concepts and Methodology, Java

CS 19 C++ Programming

CS 20J Java Programming

CS 34 Mobile Platforms-iPhone and Android

CS 35 Mobile Game Development

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.

Prepares the student to create interactive and dynamic web pages using client-side and server-side programming languages.

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

CS 12J Introduction to Programming Concepts and Methodology, Java

CS 20J Java Programming

CS 32 Introduction to Internet Programming

CS 33 Introduction to Programming Database-Driven Websites with PHP

CS 34 Mobile Platforms-iPhone and Android

Transfer Credit: Transfers to CSU UC.

C-ID: COMP 112

Transfer Credit: Transfers to CSU UC.

C-ID: COMP 112

Transfer Credit: Transfers to CU.

C-ID: C-ID ENGR 120

Transfer Credit: Transfers to CSU UC.

C-ID: CS 11M + CS 19 = C-ID ENGR 120

Transfer Credit: Transfers to CSU UC.

C-ID: COMP 112

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Computer Science

Computer Science Courses

Transfer Credit: Transfers to CSU UC.

C-ID: 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.
Describes programming, documentation, and software design methodologies using C++. Assumes that students have been introduced to classes and objects, control structures, repetition, functions, and logical operators. Includes a brief review of functions, arrays, pointers and strings. New topics include: object-oriented programming, inheritance, polymorphism, exception handling, and object-oriented design. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU. UC: C-ID: CS 19 or CS 20 or C-ID COMP 122; CS 11 M or CS 19 or 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.
Describes programming, documentation, and software-design methodologies using Java. Includes a brief review of control structures, methods and arrays as students rapidly progress to object-oriented programs, and discrete structures. New topics include: inheritance, polymorphism, exceptions, graphics, graphical-user interfaces, files, strings, threads, and dynamic data structures. 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 or CS 20 or 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 20 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; Previous programming experience strongly recommended.
Repeatability: May be taken a total of 1 time.
Describes discrete mathematical systems including methods of proof that shape the foundations of computer science. Includes propositional logic, set and number theory, Boolean Algebra, deductive and inductive proof, functions and relations, combinatorics, discrete probability, graph theory and network models, and efficiency of algorithms. Math majors should enroll in MATH 23 (identical to CS 23). May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU. UC: C-ID: COMP 152

Elementary Computer Organization
4 units; 3 hours Lecture, 4 hours Laboratory
Prerequisite: CS 19 or CS 20 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 Arias, Division Director
Division Office, Room 701
Chuck Mornard, Department Chair, (831) 479-6235
Aptos Counseling: (831) 479-6274
for appointment
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, owners, builders, inspectors, managers, supervisors, estimators, planners and schedulers, support staff, craft workers, and other areas related to construction.

Required Preparation: CS 19 or CS 20 and MATH 5A.

Catalog Learning Outcomes
1. Plan, manage, and construct all phases of residential, commercial, heavy civil, and industrial buildings.
2. Introduce the construction process, competencies, and the construction management profession.
3. Introduce students to the core principles and practices of construction management.
4. Introduce the application of technical skills in construction management.
5. Introduce the application of professional skills in construction management.
6. Introduce the application of ethical principles in construction management.
7. Introduce the application of legal principles in construction management.
8. Introduce the application of management principles in construction management.
9. Introduce the application of communication principles in construction management.
10. Introduce the application of leadership principles in construction management.
11. Introduce the application of teamwork principles in construction management.

Required Courses Units
CEM 151 Construction Fundamentals: Principles and Practices ........................................... 3
CEM 151L Construction Fundamentals: Principles and Practices Lab .................................... 1
CEM 154 Construction Estimating ...................................................................................... 3
CEM 155 Blueprint Reading ................................................................................................. 3
CEM 157 Construction Law ................................................................................................. 3
CEM 159 Construction Planning and Scheduling ............................................................... 3
CEM 160 Construction Management .................................................................................. 3
CEM 161 Construction Business and Related Topics ......................................................... 3
CEM 162 Sustainable Buildings, Home Performance, and the Environment ........................................... 3
Approved Electives (9 Units)
CEM 151EL Electrical Basics for Construction Technology .................................................. 3
CEM 151FC Basic Finish Carpentry ..................................................................................... 1
CEM 151PL Plumbing Basics for Construction Technology ................................................... 1
CEM 162BS Building Science for Construction Technology .................................................. 3
CEM 162HR Home Energy Rating System ............................................................................ 1
CEM 162LD Green Building and LEED .............................................................................. 3
CEM 162SP Passive Solar Design and Construction ............................................................ 2
CEM 162ST Solar Photovoltaic Design and Installation ........................................................ 3
CEM 163 Fundamentals of Renewable Energy Systems .......................................................... 3
CEM 164C Building Fundamentals of the 2013 California Residential Code ................................ 3
CEM 165E 2013 California Energy 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
CEM 177 Fundamentals of Residential Framing ..................................................................... 3
CEM 178A Residential Construction Skills 1“Front End” ...................................................... 3
CEM 178B Residential Construction Skills 2 “Finish End” ...................................................... 3
CEM 199C Career Work Experience Education ........................................................................ 2

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.
2. Introduce the construction process, competencies, and the construction management profession.
3. Introduce students to the core principles and practices of construction management.
4. Introduce the application of technical skills in construction management.
5. Introduce the application of professional skills in construction management.
6. Introduce the application of ethical principles in construction management.
7. Introduce the application of legal principles in construction management.
8. Introduce the application of management principles in construction management.
9. Introduce the application of communication principles in construction management.
10. Introduce the application of leadership principles in construction management.
11. Introduce the application of teamwork principles in construction management.

Required Courses (25 units)
CEM 151 Construction Fundamentals: Principles and Practices ........................................... 3
CEM 151L Construction Fundamentals: Principles and Practices Lab .................................... 1
CEM 154 Construction Estimating ...................................................................................... 3
CEM 155 Blueprint Reading ................................................................................................. 3
CEM 157 Construction Law ................................................................................................. 3
CEM 159 Construction Planning and Scheduling ............................................................... 3
CEM 160 Construction Management .................................................................................. 3
CEM 161 Construction Business and Related Topics ......................................................... 3
CEM 162 Sustainable Buildings, Home Performance, and the Environment ........................................... 3

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

Total Units 21
Building Inspection and Construction Codes

The Building Inspection option leads to certifications in the codes that are needed by those seeking employment as Building Inspectors. Building inspectors are one of the more stable areas of construction employment. Building Inspectors are employed in both the public and private sectors.

Learning Outcomes
1. Inspect and analyze a building for compliance with current building standards and sustainability sciences.

Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEM 159L</td>
<td>Plumbing Code</td>
<td>3</td>
</tr>
<tr>
<td>CEM 160L</td>
<td>Mechanical Code</td>
<td>3</td>
</tr>
<tr>
<td>CEM 175C</td>
<td>2014 National Electric Code (NEC) Commercial</td>
<td>3</td>
</tr>
<tr>
<td>CEM 175R</td>
<td>2014 National Electric Code (NEC) Residential</td>
<td>3</td>
</tr>
<tr>
<td>CEM 177</td>
<td>Fundamentals of Residential Framing</td>
<td>3</td>
</tr>
<tr>
<td>CEM 178A</td>
<td>Residential Construction Skills 1: “Front End”</td>
<td>3</td>
</tr>
<tr>
<td>CEM 178B</td>
<td>Residential Construction Skills 2: “Finish End”</td>
<td>3</td>
</tr>
<tr>
<td>CEM 199C</td>
<td>Career Work Experience Education</td>
<td>2</td>
</tr>
</tbody>
</table>

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)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>CEM 150L</td>
<td>Construction Fundamentals: Principles and Practices</td>
<td>3</td>
</tr>
<tr>
<td>CEM 151L</td>
<td>Construction Fundamentals: Principles and Principles Lab</td>
<td>3</td>
</tr>
<tr>
<td>CEM 155</td>
<td>Blueprint Reading</td>
<td>3</td>
</tr>
<tr>
<td>CEM 162</td>
<td>Sustainable Buildings, Home Performance, and the Environment</td>
<td>3</td>
</tr>
<tr>
<td>CEM 164C</td>
<td>Fundamentals of the 2013 California Residential Code</td>
<td>3</td>
</tr>
<tr>
<td>CEM 166A</td>
<td>Fundamentals of the 2015 Uniform Building Code 1 Structural</td>
<td>3</td>
</tr>
<tr>
<td>CEM 167A</td>
<td>Fundamentals of the 2012 International Building Code 8 Non-Structural</td>
<td>3</td>
</tr>
<tr>
<td>CEM 168A</td>
<td>Fundamentals of the 2015 Uniform Plumbing Code</td>
<td>3</td>
</tr>
<tr>
<td>CEM 169A</td>
<td>Fundamentals of the 2013 Uniform Mechanical Code</td>
<td>3</td>
</tr>
<tr>
<td>CEM 175C</td>
<td>2014 National Electric Code (NEC) Commercial</td>
<td>3</td>
</tr>
<tr>
<td>CEM 175R</td>
<td>2014 National Electric Code (NEC) Residential</td>
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Three units from the following

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>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>or</td>
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</tr>
<tr>
<td>CABB 157</td>
<td>Business and Technical Writing</td>
<td>3</td>
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</tbody>
</table>

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 introduction to 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.
2. Compare and contrast various renewable energy technologies and their relationship with energy conservation, scarce resources and the environment.
3. Critically assess building science as it pertains to safety, health, comfort, energy efficiency, and building durability.
4. Investigate solar derived active and passive systems and their relationship with energy conservation, scarce resources, and the environment.

Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEM 154</td>
<td>Construction Law</td>
<td>3</td>
</tr>
<tr>
<td>CEM 155</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 161</td>
<td>Construction Business and Related Topics</td>
<td>3</td>
</tr>
<tr>
<td>CEM 162</td>
<td>Building Science for Construction Technology</td>
<td>3</td>
</tr>
<tr>
<td>CEM 162H</td>
<td>Home Energy Rating System</td>
<td>3</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>3</td>
</tr>
<tr>
<td>CEM 162SP</td>
<td>Solar Photovoltaic Design and Installation</td>
<td>3</td>
</tr>
<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 165E</td>
<td>Principles of Renewable Energy</td>
<td>3</td>
</tr>
<tr>
<td>CEM 167A</td>
<td>Residential Construction Skills 1: “Front End”</td>
<td>3</td>
</tr>
<tr>
<td>CEM 178B</td>
<td>Residential Construction Skills 2: “Finish End”</td>
<td>3</td>
</tr>
<tr>
<td>CEM 199C</td>
<td>Career Work Experience Education</td>
<td>2</td>
</tr>
</tbody>
</table>

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.
2. Critically assess various renewable energy technologies and their relationship with energy conservation, scarce resources, and the environment.
3. Investigate solar derived active and passive systems and their relationship with energy conservation, scarce resources, and the environment.

Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEM 154</td>
<td>Construction Law</td>
<td>3</td>
</tr>
<tr>
<td>CEM 155</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 161</td>
<td>Construction Business and Related Topics</td>
<td>3</td>
</tr>
<tr>
<td>CEM 162</td>
<td>Building Science for Construction Technology</td>
<td>3</td>
</tr>
<tr>
<td>CEM 162H</td>
<td>Home Energy Rating System</td>
<td>3</td>
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<td>CEM 162LD</td>
<td>Green Building and LEED</td>
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<td>CEM 162PS</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>
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</tr>
<tr>
<td>CEM 165E</td>
<td>Principles of Renewable Energy</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units: 28-31
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 Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEM 151</td>
<td>Construction Fundamentals: Principles and Practices</td>
<td>3</td>
</tr>
<tr>
<td>CEM 151L</td>
<td>Construction Fundamentals: Principles and Practices Lab</td>
<td>1</td>
</tr>
<tr>
<td>CEM 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 for Construction Technology</td>
<td>1</td>
</tr>
<tr>
<td>CEM 177</td>
<td>Fundamentals of Residential Framing</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units: 10

Building Energy Management Skills Certificate

Learning Outcomes:

1. Demonstrate understanding of the basic codes and building standards in residential and commercial structures.

Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEM 151</td>
<td>Construction Fundamentals: Principles and Practices</td>
<td>3</td>
</tr>
<tr>
<td>CEM 151L</td>
<td>Construction Fundamentals: Principles and Practices Lab</td>
<td>1</td>
</tr>
<tr>
<td>CEM 155</td>
<td>Blueprint Reading</td>
<td>1</td>
</tr>
<tr>
<td>CEM 162</td>
<td>Sustainable Buildings, Home Performance, and the Environment</td>
<td>3</td>
</tr>
<tr>
<td>CEM 166A</td>
<td>Fundamentals of the 2015 International Building Code I Structural</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units: 16

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 Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEM 151</td>
<td>Construction Fundamentals: Principles and Practices</td>
<td>3</td>
</tr>
<tr>
<td>CEM 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>
<tr>
<td>CEM 162LD</td>
<td>Building Science for Construction Technology</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units: 13

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 Code</th>
<th>Course 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>
<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>
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</tr>
<tr>
<td>CEM 162LD</td>
<td>Green Building and LEED</td>
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</tbody>
</table>

Total Units: 14

Construction Building Inspection and Codes Skills Certificate

Learning Outcomes:

1. Demonstrate understanding of the basic codes and building standards in residential and commercial structures.

Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEM 151</td>
<td>Construction Fundamentals: Principles and Practices</td>
<td>3</td>
</tr>
<tr>
<td>CEM 151L</td>
<td>Construction Fundamentals: Principles and Practices Lab</td>
<td>1</td>
</tr>
<tr>
<td>CEM 155</td>
<td>Blueprint Reading</td>
<td>1</td>
</tr>
<tr>
<td>CEM 162</td>
<td>Sustainable Buildings, Home Performance, and the Environment</td>
<td>3</td>
</tr>
<tr>
<td>CEM 166A</td>
<td>Fundamentals of the 2015 International Building Code I Structural</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units: 16

Construction Electrical Inspection and Codes Skills Certificate

Learning Outcomes:

1. Demonstrate understanding of the basic electrical codes and building codes in residential and commercial structures.

Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEM 151</td>
<td>Construction Fundamentals: Principles and Practices</td>
<td>3</td>
</tr>
<tr>
<td>CEM 151L</td>
<td>Construction Fundamentals: Principles and Practices Lab</td>
<td>1</td>
</tr>
<tr>
<td>CEM 155</td>
<td>Blueprint Reading</td>
<td>1</td>
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<td>CEM 175C</td>
<td>2014 National Electrical Code (NEC)</td>
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</tr>
<tr>
<td>CEM 175R</td>
<td>2014 National Electrical Code (NEC) Residential</td>
<td>3</td>
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</tbody>
</table>

Total Units: 13

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.

Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course 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>
<tr>
<td>CEM 151L</td>
<td>Construction Fundamentals: Principles and Practices Lab</td>
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</tr>
<tr>
<td>CEM 155</td>
<td>Blueprint Reading</td>
<td>1</td>
</tr>
<tr>
<td>CEM 162</td>
<td>Sustainable Buildings, Home Performance, and the Environment</td>
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</tr>
<tr>
<td>CEM 166</td>
<td>Fundamentals of the 2015 Uniform Plumbing Code</td>
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</tr>
<tr>
<td>CEM 169A</td>
<td>Fundamentals of the 2015 Uniform Mechanical Code</td>
<td>3</td>
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</tbody>
</table>

Total Units: 16

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).

Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEM 151</td>
<td>Construction Fundamentals: Principles and Practices</td>
<td>3</td>
</tr>
<tr>
<td>CEM 151L</td>
<td>Construction Fundamentals: Principles and Practices Lab</td>
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</tr>
<tr>
<td>CEM 151EL</td>
<td>Electrical Basics for Construction Technology</td>
<td>1</td>
</tr>
<tr>
<td>CEM 151PL</td>
<td>Plumbing for Construction Technology</td>
<td>1</td>
</tr>
<tr>
<td>CEM 155</td>
<td>Blueprint Reading</td>
<td>1</td>
</tr>
<tr>
<td>CEM 177</td>
<td>Fundamentals of Residential Framing</td>
<td>3</td>
</tr>
<tr>
<td>CEM 178A</td>
<td>Residential Construction Skills 1: “Front End”</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units: 12

Construction and Energy Management Courses

CEM 151     Construction Fundamentals: Principles and Practices | 3 units; 3 hours Lecture

Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 1 time.
Covers the sequence of events for residential construction from both an owner’s and a builder’s point of view. Topics include categories and phases of construction, planning and permitting processes, analysis of contract documents, safety, tools, equipment, material selection and use, foundations, framing, roofing, insulation, drywall, plumbing, HVAC, electrical, interior and exterior carpentry and finishes, and introductions to estimating, planning and scheduling, and project management.
Transfer Credit: Non-transferable.

Total Units: 8
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 finishing.
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.
Introduces basic electrical systems and standards, piping, fittings, fixtures, installation techniques and construction technology. Topics include plumbing terminology, codes and standards, practices, mechanics’ liens, stop notices, public agency orders, and residential construction.
Transfer Credit: Non-transferable.

CEM 151FC Basic Finish Carpentry
1 unit; 1 hour Lecture, 1 hour Laboratory
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 1 time.
Introduces 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
Recommended Preparation: Eligibility for MATH 154.
Repeatability: May be taken a total of 1 time.
Introduces 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, sections, 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 builder’s 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 soft- ware 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 benefits 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, LEED’s 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 151L and CEM 151.
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
3 units; 3 hours 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.
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 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
Repeatability: May be taken a total of 1 time.
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
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.
Transfer Credit: Non-transferable.

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, venting, 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 and comb. 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, 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 Electrical 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, roofing, 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 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.

CONSTRUCTION AND GUIDANCE
Counseling Department
Margaray Regalado Rodriguez, Counseling and Educational Support Services Division Dean
Division Office, Building 100
Anna Zagoska, 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.
Introduces success and study skills including motivation, concentration, time and financial management, decision making, educational planning, stress management, career development, and self-analysis. 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 related 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 – 3 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.
CULINARY ARTS AND HOSPITALITY MANAGEMENT
Human Arts and Social Sciences Division
Cabrillo College

Course Descriptions:

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, advanced a la carte dining, and buffet food productions, as well as food service management training for the industry. Cabrillo College offers basic skills courses 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 courses 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 Cabrillo College can study business along with 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. 

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. Demonstrate professionalism as required in the hospitality industry.
3. Produce consistent quality restaurant lunch and dinner dishes, banquet meals, and bakery products in a timely fashion.
4. Produce consistent quality restaurant lunch and dinner dishes, banquet meals, and bakery products in a timely fashion.
5. Produce consistent quality restaurant lunch and dinner dishes, banquet meals, and bakery products in a timely fashion.

Core Course (33 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAHM 10 Introduction to Hospitality Management</td>
<td>3</td>
</tr>
<tr>
<td>CAHM 50A Introduction to Culinary Arts Basics</td>
<td>1</td>
</tr>
<tr>
<td>CAHM 50B Introduction to Entree Preparation and Service</td>
<td>1</td>
</tr>
<tr>
<td>CAHM 50C Introduction to Appetizers and Beverage Preparation</td>
<td>1</td>
</tr>
<tr>
<td>CAHM 50L Introduction to Culinary Arts Lab</td>
<td>2</td>
</tr>
<tr>
<td>CAHM 57 Catering and Beverage Operations</td>
<td>2</td>
</tr>
<tr>
<td>CAHM 60 Purchasing and Food Cost Control</td>
<td>2</td>
</tr>
<tr>
<td>CAHM 63 Food Service Management</td>
<td>2</td>
</tr>
<tr>
<td>CAHM 64 Sanitation and Hygiene</td>
<td>2</td>
</tr>
<tr>
<td>CAHM 151B Advanced Culinary Arts</td>
<td>2</td>
</tr>
<tr>
<td>CAHM 155 Basic Baking and Pastry</td>
<td>3</td>
</tr>
<tr>
<td>CAHM 155L Catering and Beverage Operation Lab</td>
<td>3</td>
</tr>
<tr>
<td>CAHM 99C Career Work Experience Education</td>
<td>2</td>
</tr>
</tbody>
</table>

Approved Electives (6 Units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUTR 20 Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>NUTR 22 Nutrition, Health and Wellness</td>
<td>3</td>
</tr>
<tr>
<td>NUTR 120 Nutritional Cooking</td>
<td>3</td>
</tr>
<tr>
<td>CAHM 130A Beer, Sale, and Spirits</td>
<td>1</td>
</tr>
<tr>
<td>CAHM 149 Cake Decorating</td>
<td>2</td>
</tr>
<tr>
<td>CAHM 153 Garde Manger</td>
<td>2</td>
</tr>
<tr>
<td>CAHM 159 Chocolate</td>
<td>1</td>
</tr>
<tr>
<td>CAHM 165 Meat Cutting and Sausage Making</td>
<td>2</td>
</tr>
<tr>
<td>CAHM 167 Cultural and Ethnic Foods</td>
<td>2</td>
</tr>
<tr>
<td>CAHM 168 Advanced Baking and Pastry</td>
<td>3</td>
</tr>
<tr>
<td>CAHM 170 The Art of Creating Wedding Cakes</td>
<td>2</td>
</tr>
<tr>
<td>CAHM 172A Wine and Wine Service</td>
<td>2</td>
</tr>
<tr>
<td>CAHM 172B Sensory Evaluation of Wine Varietals</td>
<td>2</td>
</tr>
<tr>
<td>CAHM 174 World Wines</td>
<td>3</td>
</tr>
<tr>
<td>CAHM 175 History and Practice of Sauces</td>
<td>2</td>
</tr>
<tr>
<td>CAHM 176 Basic Winemaking</td>
<td>2</td>
</tr>
<tr>
<td>CAHM 177 Basic Wine Grape Viticulture</td>
<td>2</td>
</tr>
<tr>
<td>CAHM 178 Wine Marketing and Sales</td>
<td>2</td>
</tr>
<tr>
<td>CAHM 179 Wines of California</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units 60
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 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>2-3</td>
</tr>
<tr>
<td>CAHM 64</td>
<td>Sanitation and Hygiene</td>
<td>2</td>
</tr>
<tr>
<td>CAHM 153</td>
<td>Gastronomy</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 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 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>2-3</td>
</tr>
<tr>
<td>CAHM 64</td>
<td>Sanitation and Hygiene</td>
<td>2</td>
</tr>
<tr>
<td>CAHM 153</td>
<td>Gastronomy</td>
<td>2</td>
</tr>
<tr>
<td>CAHM 159</td>
<td>Advanced Baking and Pastry</td>
<td>3</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
1. Demonstrate knowledge of viticulture, viniculture, wine faults, world wines, and wine varietals.
2. Demonstrate knowledge of enology, wine faults, California wine and wine varietals.
3. Perform basic wine tasting room accounting, sales, marketing, promotion, and wine handling skills.
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 133</td>
<td>Wine Faults</td>
<td>2</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>
</tr>
<tr>
<td>CAHM 174</td>
<td>World Wines</td>
<td>2</td>
</tr>
<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>
</tbody>
</table>

Total Units 16

Skills Certificate in Wine Tasting Room Management

Learning Outcomes
1. Demonstrate knowledge of fundamental serving room accounting, sales, marketing, and wine handling skills.
2. Demonstrate knowledge of enology, wine faults, California wine and wine varietals.

Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAHM 133</td>
<td>Wine Faults</td>
<td>2</td>
</tr>
<tr>
<td>CAHM 135</td>
<td>Basic Wine Tasting Room Management</td>
<td>2</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>
</tr>
<tr>
<td>CAHM 176</td>
<td>Basic Winemaking</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>
</tbody>
</table>

Total Units 16

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.

Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAHM 132</td>
<td>Spanish Wines</td>
<td>2</td>
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<tr>
<td>CAHM 134</td>
<td>Italian Wines</td>
<td>3</td>
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<tr>
<td>CAHM 136</td>
<td>French Wines</td>
<td>3</td>
</tr>
<tr>
<td>CAHM 140</td>
<td>Champagne and French Sparkling Wine</td>
<td>2</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>
</tr>
<tr>
<td>CAHM 174</td>
<td>World Wines</td>
<td>3</td>
</tr>
</tbody>
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Total Units 17
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; prepapration 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 beers, 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.
Provides 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.
Provides 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
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.
Provides 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.
Provides 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 Laboratory 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.
Eligibility for CAHM 154.
Provides an introduction to artisan confections 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.
Introduces meat and fish cutting 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: Must be taken a total of 1 time.
Provides an overview of basic wine concepts including wine history, viticulture, 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 terror 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.
Examines differences in viticulture, wine laws, grape varietals, and sensory perception of wine based on the terror 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.
Introduces fundamental knife skills used in a professional kitchen. Sensation, and food safety practices. 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.
Introduces wine grape growing practices including history, wine and grape types, wine 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.
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 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 404A  Basic Knife Skills and Sanitation
1 unit; 0 hours Laboratory
Repeatability: May be repeated.
Introduces basic knife skills used in a professional kitchen. Sensation, and food safety practices. Material fees may apply.
Transfer Credit: Non-transferable.

CAHM 404B  Basic Kitchen Skills
3 units; 3 hours Lecture
Prerequisite: CAHM 172A and CAHM 172B.
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
1 unit; 0 hours Laboratory
Repeatability: May be repeated.
Introduces fundamental knife skills used in a professional kitchen. Sensation, and food safety practices. Material fees may apply.
Transfer Credit: Non-transferable.

CAHM 405B  Basic Kitchen Skills
2 units; 2 hours Laboratory
Repeatability: May be repeated.
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.

Model Program for Dance
An Associate Degree requires 60 units appropriate to your education 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.
DANCE 1 Dance Appreciation 0.5 – 3 units; 1 – 6 hours Lecture
Repeatability: May be taken a total of 1 time. Examines 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
Prerequisite: DANCE 1A or equivalent skills. 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, vocabulary, and the art of dance. Improves kinesthetic awareness and engages the imagination, and build flexibility, strength and alignment.
Transfer Credit: Transfers to CSU, UC.

DANCE 4 Contemporary Modern Dance 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, vocabulary, and the art of dance. Improves kinesthetic awareness and engages the imagination, and build flexibility, strength and alignment.
Transfer Credit: Transfers to CSU, UC.

DANCE 5 Contemporary Modern Dance 0.5 – 3 units; 1 – 6 hours Laboratory
Recommended Preparation: DANCE 4. 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, vocabulary, and the art of dance. Improves kinesthetic awareness and engages the imagination, and build flexibility, strength and alignment.
Transfer Credit: Transfers to CSU, UC.
DANCE 7  Ballet I  0.5 – 3 units; 1 – 6 hours Laboratory
Recommended Preparation: DANCE 2A.
Transfer Credit: Transfers to CSU; UC.

DANCE 8  Ballet II  0.5 – 3 units; 1 – 6 hours Laboratory
Recommended Preparation: DANCE 2A.
Transfer Credit: Transfers to CSU; UC.

DANCE 9A  Jazz Dance I  0.5 – 3 units; 1 – 6 hours Laboratory
Recommended Preparation: DANCE 2A.
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.
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.
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.
Transfer Credit: Transfers to CSU; UC.

DANCE 11A  Dance Improvisation I  0.5 – 3 units; 1 – 6 hours Laboratory
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.
Transfer Credit: Transfers to CSU; UC.

DANCE 12A  Choreography I  0.5 – 3 units; 1 – 6 hours Laboratory
Prerequisite: DANCE 11A or equivalent skills.
Transfer Credit: Transfers to CSU; UC.

DANCE 12B  Choreography II  0.5 – 3 units; 1 – 6 hours Laboratory
Prerequisite: DANCE 12A or equivalent skills.
Transfer Credit: Transfers to CSU; UC.

DANCE 13  Dance Repertory  0.5 – 4 units; 1 – 8 hours Laboratory
Recommended Preparation: DANCE 2A.
Transfer Credit: Transfers to CSU; UC.

DANCE 14A  Dance Production  0.5 – 4 units; 1 – 8 hours Laboratory
Recommended Preparation: DANCE 2A.
Transfer Credit: Transfers to CSU; UC.

DANCE 15A  Salsa Dance I  0.5 – 3 units; 1 – 6 hours Laboratory
Prerequisite: DANCE 15B or equivalent skills.
Transfer Credit: Transfers to CSU; UC.

DANCE 15B  Salsa Dance II  0.5 – 3 units; 1 – 6 hours Laboratory
Prerequisite: DANCE 15B or equivalent skills.
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.
Transfer Credit: Transfers to CSU; UC.

DANCE 16A  Baile Folklórico: Regional Dances of Mexico I  0.5 – 3 units; 1 – 6 hours Laboratory
Prerequisite: DANCE 16A or equivalent skills.
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.
Transfer Credit: Transfers to CSU; UC.

DANCE 17A  Latin Dance I  0.5 – 3 units; 1 – 6 hours Laboratory
Recommended Preparation: DANCE 2A.
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.
Transfer Credit: Transfers to CSU; UC.

DANCE 17C  Latin Dance III  0.5 – 3 units; 1 – 6 hours Laboratory
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 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 study of foundational techniques 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
Prerequisite: DANCE 19B or equivalent skills. 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 in their student record. This course is contingent upon a review of the course outline and other materials by the UC transfer campus. Transfer Credit: Transfers to CSU, UC.

DANCE 81 Swing Dance
0.5 – 3 units; 1 – 6 hours Laboratory
Recommended Preparation: DANCE 21. 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, performative, 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, performative, 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
Noell 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/DentalHygiene/

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/.

• ALL other colleges/universities attended: One (1) sealed official transcript.

• Cabrillo College courses only: Print one (1) WebAdvisor unofficial transcript.

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.
Academic Requisites

Due to the rigorous academic nature of the Dental Hygiene Program, students are required to meet health screening and clinical compliance according to program guidelines, including vaccination and drug testing requirements to provide documentation thereof. Students are also required to complete criminal background checks and drug screening, and may be denied access to clinical facilities based on the results.

Core Courses

DH 457 Dental Law and Ethics

Repeatability: May be taken a total of 1 time.

DH 456 Dental Technology I

Repeatability: May be taken a total of 1 time.

DH 455 Dental Technology II

Repeatability: May be taken a total of 1 time.

DH 454 Dental Terminology

Repeatability: May be taken a total of 1 time.

DH 453A Dental Technology I

Repeatability: May be taken a total of 1 time.

DH 453B Dental Technology II

Repeatability: May be taken a total of 1 time.

DH 452 Dental Law and Ethics

Repeatability: May be taken a total of 1 time.

DH 451 Dental Technology I

Repeatability: May be taken a total of 1 time.

DH 450 Dental Technology II

Repeatability: May be taken a total of 1 time.

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 for dentists and dental clinics.

Learning Outcomes:

- Apply theoretical knowledge and clinical decision-making skills in the use of dental patient management software.

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; 2 hours Lecture, 1 hour Laboratory

Prerequisite: Acceptance to the Cabrillo Dental Hygiene Program; NURS 20; PSYCH 1 or PSYCH 1H.

Repeatability: May be taken a total of 1 time.

Presents concepts of oral disease, prevention, and promotion of positive attitudes and behaviors toward oral health. May be offered in a Distance-Learning Format.

Transfer Credit: Non-transferable.

DH 161 Preparation for Dental Hygiene Clinic

0.5 unit; 0.5 hour Lecture, 0.5 hour Laboratory

Prerequisite: Acceptance to the Cabrillo Dental Hygiene Program.

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.

Repeatability: May be taken a total of 1 time.

Introduces medical dental history, oral inspection, oral manifestation of diseases and emergencies. May be offered in a Distance-Learning Format.

Transfer Credit: Non-transferable.

DH 162B Patient Assessment II

3 units; 3 hours Lecture, 3 hours Laboratory

Prerequisite: Acceptance to the Cabrillo Dental Hygiene Program; DH 162A.

Repeatability: May be taken a total of 1 time.

Introduces medical dental history, oral inspection, oral manifestation of diseases and 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.

Introduces principles of dental radiology theory including: radiographic techniques, laboratory and clinical application, radiation safety principles, equipment operation, processing and mounting. May be offered in a Distance-Learning Format.

Transfer Credit: Non-transferable.

DH 141AZ Dental Radiography

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.

Introduces principles of dental radiology theory including: radiographic techniques, laboratory and clinical application, radiation safety principles, equipment operation, processing and mounting. 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 172 Interim Therapeutic Restorations and Radiographic Decision Making
5 units; 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 177 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 178 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 179 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 operator, 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 174 Periodontics
2 units; 2 hours Lecture
Prerequisite: Acceptance to the Cabrillo Dental Hygiene Program. Repeatability: May be taken a total of 1 time.
Introduces periodontal anatomy, physiology, and pathogenesis as well as in-depth periodontal treatment and management. 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.
Introduces advanced clinical techniques for administration of local anesthetics. May be offered in a Distance-Learning Format. Transfer Credit: Non-transferable.

DH 185 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 history and principles of 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 186A Community Oral Health and Case Studies
0 units; 36 hours Lecture, 18 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 dentaly underserved population. A continuation of DH 186A. 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.
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 187 Dental Law and Ethics
0 units; 9 hours Lecture
Prerequisite: Acceptance to the Cabrillo Dental Hygiene Program. Repeatability: May be taken a total of 1 time.
Introduces 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 187 Dental Law and Ethics
0 units; 9 hours Lecture
Prerequisite: Acceptance to the Cabrillo Dental Hygiene Program. Repeatability: May be taken a total of 1 time.
Introduces 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 188A Dental Technology I
0 units; 36 hours Laboratory
Prerequisite: Acceptance to the Cabrillo Dental Hygiene Program. Repeatability: May be taken a total of 1 time.
Introduces 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 188B Dental Technology II
1 unit; 9 hours Lecture
Prerequisite: Acceptance to the Cabrillo Dental Hygiene Program. Repeatability: May be taken a total of 1 time.
Introduces 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 189 Dental Insurance
1 unit; 18 hours Lecture
Prerequisite: Acceptance to the Cabrillo Dental Hygiene Program. Repeatability: May be taken a total of 1 time.
Introduces 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.
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. This comprehensive program that provides students with professional leadership skills 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.

Learning Outcomes

1. Identify and articulate models of dynamic leadership and principals of leadership.
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
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.

Introduces the theory and practice of team self-management and its application in 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.

Transfers 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.

Transfers 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.

Transfers Credit: Non-transferable.

DMCP 130 First Year Experience Seminar

1 – 2 units; 0.5 – 1 hours Lecture; 1.5 – 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.

Transfers Credit: Non-transferable.

DMCP 160A-ZZ Special Topics for Academy for College Excellence Program

1 – 4 units; 1 – 4 hours Lecture or 1 – 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.

Transfers 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

Repeatability: May be taken a total of 20 times.

Identifies 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

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

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.

James Weckler, Division Dean
Division Office, Room 301
Ann Endris, Program Director, aendris@cabrillo.edu
Aptos Counseling: (831) 479-6274 for appointment
Watsonville Counseling: (831) 786-4734
http://www.cabrillo.edu/academics/ace/
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.
Demonstrates 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 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; 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 the ability to formulate questions from readings, appraising self-talk and developing affirmations, writing a lifetime paper reframing, focusing on 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 notetaking 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.

DIGITAL MEDIA
Visual, Applied, and Performing Arts Division
John Grautily, Division Dean
Division Office, Room VAPA 1007
John Grautily, Department Co-Chair, (831) 466-3269
Beth Garetrud, Department Co-Chair, (831) 479-6475
Atos Counseling: (831) 479-6724 for appointment
Watsonville Counseling: (831) 786-4734
http://www.cabrillo.edu/programs

Digital Media Department
The Digital Media Department offers Digital Publishing and Web Media degree programs with courses in technology and skills needed for entry-level employment, updating existing skills, transfer to upper division programs, and preparation for advanced specialized courses in the fields of Digital Publishing and Web Media involving graphic design, production for print and interactive media, website design and development, along with video and animation production for diverse screens and devices.

Training and Careers
Students learn to use computer applications for graphic design and typography, publishing, news media, entertainment, education, commercial media, advertising, marketing, social media, and other emerging fields. Digital Media courses are designed to prepare students for jobs and careers in ever-changing digital media professions and related technologies. Employers have specified three important qualities, in order of importance, for digital media job seekers: 1) Talent (inventive and creative with a strong interest in digital media), 2) Teamwork (group communication and problem-solving skills), and 3) Technological Aptitude (proficient with digital tools and techniques).

Degrees and Certificates
Cabrillo offers Associate in Science Degrees and Certificates of Achievement for both Digital Publishing and Web Media. Students may earn an A.S. in Digital Publishing or Web Media (by meeting the requirements of either area of concentration). It is not possible to obtain separate A.S. Degrees in both Digital Publishing and Web Media. However, separate Certificates of Achievement may be obtained in both areas of concentration.

Digital Publishing A.S. Degree
The Digital Publishing program addresses communication design principles and processes for producing and publishing primarily print media. Students learn terminology, graphic design, document formatting, file management, color systems, and proofing strategies for the design and layout of media for print and diverse devices. Principles of design and layout learned in digital publishing for print can be applied to screen media, web publishing, multimedia, video, and other non-print uses. Along with earning an associate degree, certificates of achievement, and skills certificates, students may earn credits that transfer to upper division programs.

Note: Old courses that used out-of-date software and techniques (100 level courses) are not equivalent to the current revised updated courses. Students with Catalog Rights should see a Counselor.

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 e-publishing examples. (Global Awareness, Critical Thinking, Communication.)

Total Units: 60

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)
- DM 1: Introduction to Digital Media
- DM 2: Digital Publishing I
- DM 4: Digital Graphics
- DM 5: Design for Digital Media
- DM 6: Digital Publishing II
- DM 8: Creative Portfolios
- DM 12: Photoshop Techniques I
- DM 46B: Digital Photography I

Electives (7 units)
- AP 6: Introduction to Digital Photography
- AP 9A: Beginning Photography
- AP 14: Introduction to Video Art
- AP 15: History of Photography
- AP 35: Photography, New Media, and Social Change

Total Units: 31.5-34.5
### 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 websites 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)

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

**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>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>DM 1</td>
<td>Introduction to Digital Media</td>
<td>4</td>
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<tr>
<td>DM 4</td>
<td>Digital Graphics</td>
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<tr>
<td>DM 5</td>
<td>Design for Digital Media</td>
<td>4</td>
</tr>
<tr>
<td>DM 8</td>
<td>Creative Portfolios</td>
<td>1.5</td>
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<tr>
<td>DM 12</td>
<td>Photoshop Techniques I</td>
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<tr>
<td>DM 60</td>
<td>Web Design with HTML and CSS</td>
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<td>DM 72</td>
<td>Fundamentals of 2D Animation</td>
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<td>ESL 100</td>
<td>High Advanced Academic ESL</td>
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<td>DM 5</td>
<td>Design for Digital Media</td>
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<td>DM 4</td>
<td>Digital Graphics</td>
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<tr>
<td>DM 11</td>
<td>Digital Illustration</td>
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<tr>
<td>DM 13</td>
<td>Photoshop Techniques II</td>
<td>4</td>
</tr>
<tr>
<td>DM 34</td>
<td>Introduction to Video Production</td>
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<tr>
<td>DM 61</td>
<td>Responsive Web Design</td>
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<tr>
<td>DM 70</td>
<td>Web Design using Dreamweaver</td>
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<td>Fundamentals of 2D Animation</td>
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**Other Required Courses (6-9 units)**

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<th>Course Code</th>
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</thead>
<tbody>
<tr>
<td>ENGL 100</td>
<td>Elements of Writing</td>
<td>3</td>
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<tr>
<td>DM 4</td>
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<tr>
<td>DM 72</td>
<td>Fundamentals of 2D Animation</td>
<td>4</td>
</tr>
</tbody>
</table>

**Total Units:** 31.5-34.5

**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>
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<tr>
<th>Course Code</th>
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<td>DM 1</td>
<td>Introduction to Digital Media</td>
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**Other Required Courses (6-9 units)**

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<td>DM 70</td>
<td>Web Design using Dreamweaver</td>
<td>4</td>
</tr>
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</table>

**Total Units:** 34-37

**Animation Skills Certificate**

**Learning Outcome:**
1. Demonstrate the ability to research, develop, create and produce immersive motion media for diverse forms of presentation.

**Required Units**

<table>
<thead>
<tr>
<th>Course Code</th>
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<td>DM 1</td>
<td>Introduction to Digital Media</td>
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<td>DM 8</td>
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<td>DM 34</td>
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<td>DM 72</td>
<td>Fundamentals of 2D Animation</td>
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<tr>
<td>ETECH 40</td>
<td>3D Animation</td>
<td>3</td>
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</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**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tr>
<td>AP 35</td>
<td>The Moving Image: Experimental Film, Video, and New Media Art</td>
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<tr>
<td>DM 1</td>
<td>Introduction to Digital Media</td>
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<td>DM 34</td>
<td>Introduction to Video Production</td>
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<tr>
<td>ENGL 49A</td>
<td>The Language of Film: Film History</td>
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<tr>
<td>TA 17</td>
<td>Introduction to Directing</td>
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</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**

<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>
</tr>
<tr>
<td>AP 79</td>
<td>Creative Careers - Discovering Self Directed Pathways</td>
<td>3</td>
</tr>
<tr>
<td>ART 79</td>
<td>Creative Careers - Discovering Self Directed Pathways</td>
<td>3</td>
</tr>
<tr>
<td>DANCE 79</td>
<td>Creative Careers - Discovering Self Directed Pathways</td>
<td>3</td>
</tr>
<tr>
<td>DM 79</td>
<td>Creative Careers - Discovering Self Directed Pathways</td>
<td>3</td>
</tr>
<tr>
<td>DM 79</td>
<td>Creative Careers - Discovering Self Directed Pathways</td>
<td>3</td>
</tr>
<tr>
<td>DM 79</td>
<td>Creative Careers - Discovering Self Directed Pathways</td>
<td>3</td>
</tr>
<tr>
<td>DM 79</td>
<td>Creative Careers - Discovering Self Directed Pathways</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Units:** 7-10

**Graphic Imaging Skills Certificate**

**Learning Outcomes:**
1. Create and produce images for use in graphic design & media arts.

**Required Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>DM 1</td>
<td>Introduction to Digital Media</td>
<td>4</td>
</tr>
<tr>
<td>DM 4</td>
<td>Digital Graphics</td>
<td>4</td>
</tr>
<tr>
<td>DM 8</td>
<td>Creative Portfolios</td>
<td>4</td>
</tr>
<tr>
<td>DM 11</td>
<td>Digital Illustration</td>
<td>4</td>
</tr>
<tr>
<td>DM 13</td>
<td>Photoshop Techniques II</td>
<td>4</td>
</tr>
<tr>
<td>DM 12</td>
<td>Photoshop Techniques I</td>
<td>4</td>
</tr>
</tbody>
</table>

**Total Units:** 17.5

**Motion Graphics Skills Certificate**

**Learning Outcome:**
1. Demonstrate the ability to research, design, produce and compose Motion graphics, title sequences, and effects for time-based motion media for diverse forms of presentation.

**Required Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>DM 1</td>
<td>Introduction to Digital Media</td>
<td>4</td>
</tr>
<tr>
<td>DM 34</td>
<td>Introduction to Video Production</td>
<td>4</td>
</tr>
<tr>
<td>DM 36</td>
<td>Motion Graphics and Video Compositing</td>
<td>4</td>
</tr>
<tr>
<td>ART 27</td>
<td>Graphic Design</td>
<td>3</td>
</tr>
<tr>
<td>ART 28</td>
<td>Lettering and Typography</td>
<td>3</td>
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</tbody>
</table>

**Total Units:** 18
**Digital Media Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
</table>
| DM 1        | Introduction to Digital Media                                                  | 4     | 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 entertainment. May be offered in a Distance-Learning Format. Materials fees may apply.
| DM 2        | Digital Publishing I                                                          | 4     | Introduces digital media from historical and contemporary perspectives. Topics include concepts, trends, content, methods, forms, careers, and delivery of digital media for print, screen display, and entertainment. May be offered in a Distance-Learning Format. Materials fees may apply.
| DM 3        | Digital Illustration                                                          | 4     | Presents use of vector-based illustration software for digital publishing, web graphics, and screen media projects. May be offered in a Distance-Learning Format. Materials fees may apply.
| DM 4        | Digital Graphics                                                              | 4     | Discusses 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 fees may apply.

- **DM 5**: Design for Digital Media
  4 units; 3 hours Lecture, 2 hours Laboratory
  Prerequisite: DM 1 or equivalent skills.
  Repeatable: 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.
  Repeatable: 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 8**: Creative Portfolios
  1.5 units; 1.5 hours Lecture, 1 hour Laboratory
  Prerequisite: DM 2 and DM 4 or equivalent skills.
  Repeatable: May be taken a total of 1 time.
  Covers production of portfolios and collateral materials for creative careers. Taught on Macintosh. Adaptable to Windows. May be offered in a Distance-Learning Format. Materials fees apply. Transfer Credit: Transfers to CSU.

- **DM 10**: Motion Media Skills Certificate
  4 units; 3 hours Lecture, 2 hours Laboratory
  Prerequisite: DM 34 or equivalent experience.
  Repeatable: 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 fees may apply. Transfer Credit: Transfers to CSU.

- **DM 34**: Introduction to Video Production
  4 units; 3 hours Lecture, 2 hours Laboratory
  Prerequisite: DM 12 or equivalent skills.
  Repeatable: 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 fees may apply. Transfer Credit: Transfers to CSU.

- **DM 35**: Intermediate Video Production
  4 units; 3 hours Lecture, 2 hours Laboratory
  Prerequisite: DM 34 or equivalent skills.
  Repeatable: 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 36**: Motion Graphics and Video Compositing
  4 units; 3 hours Lecture, 2 hours Laboratory
  Prerequisite: DM 34 or equivalent experience.
  Repeatable: 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.
  Repeatable: 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  
Recommended Preparation: DM 1.  
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  
2 units; 1.5 hours Lecture, 1 hour Laboratory  
Prerequisite: DM 1.  
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 1 or equivalent skills.  
Repeatability: May be taken a total of 1 time.  
*Introduces planning, design, and production of graphics and page layout 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 70** Web Design Using Dreamweaver  
4 units; 3 hours Lecture, 2 hours Laboratory  
Prerequisite: DM 1 and DM 60.  
*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 72** 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 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.

**DM 80** The Studio  
3 units; 2 hours Lecture, 3 hours Laboratory  
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 Laboratory, 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**  
**Human Arts and Social Sciences Division**

**Paul Harwell,** Division Dean  
**Division Office, Room 420**

**Michelle Chao,** Department Chair, (831) 477-3502  
Aptos Counseling: (831) 479-6724 for appointment  
Watsonville Counseling: (831) 786-4734  
Call (831) 479-6354 for more information  
http://www.cabrillo.edu/programs  

**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.  
California 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.csalgin.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>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE 31</td>
<td>3</td>
<td>Child Growth and Development</td>
</tr>
<tr>
<td>ECE 32</td>
<td>3</td>
<td>Child, Family and Community</td>
</tr>
<tr>
<td>ECE 34</td>
<td>3</td>
<td>Observation and Assessment Methods</td>
</tr>
<tr>
<td>ECE 51</td>
<td>3</td>
<td>Principles of Working with Young Children</td>
</tr>
<tr>
<td>ECE 52</td>
<td>3</td>
<td>Teaching in a Diverse Society</td>
</tr>
<tr>
<td>ECE 53</td>
<td>3</td>
<td>Introduction to Curriculum for the Young Child</td>
</tr>
<tr>
<td>ECE 54</td>
<td>3</td>
<td>Early Childhood Education Practicum</td>
</tr>
<tr>
<td>ECE 59</td>
<td>3</td>
<td>Health, Safety, and Nutrition Issues in the Child Care Setting</td>
</tr>
</tbody>
</table>

**Electives (0-2 Units)**

Any course numbered 1-99.  
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 Core Courses (34.5 Units)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE 31</td>
<td>*</td>
<td>Child Growth and Development</td>
</tr>
<tr>
<td>ECE 131</td>
<td>*</td>
<td>Child Growth and Development</td>
</tr>
<tr>
<td>ECE 32</td>
<td>*</td>
<td>Child, Family and Community</td>
</tr>
<tr>
<td>ECE 142</td>
<td>*</td>
<td>Niño, familia, y comunidad</td>
</tr>
</tbody>
</table>

**Degrees**

**Early Childhood Education A.S.-T Transfer Degree**

**Associate Degree for Transfer**  
**A Degree with a Guarantee.**
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 counselling 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 developmentally appropriate teaching, relationship skills, and ant-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 (24.5 units)

<table>
<thead>
<tr>
<th>Units</th>
<th>Course Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>ECE 156A</td>
<td>Curriculum for the Young Child: Life Science</td>
</tr>
<tr>
<td>1-3</td>
<td>ECE 156B</td>
<td>Curriculum for the Young Child: Physical Science</td>
</tr>
<tr>
<td>1-3</td>
<td>ECE 156C</td>
<td>Curriculum for the Young Child: Social Knowledge</td>
</tr>
<tr>
<td>1-3</td>
<td>ECE 156D</td>
<td>Large Motor and Movement Curriculum</td>
</tr>
<tr>
<td>1-3</td>
<td>ECE 156E</td>
<td>Exploring the Arts with the Young Child</td>
</tr>
<tr>
<td>1-3</td>
<td>ECE 156F</td>
<td>Circle Time Activities</td>
</tr>
<tr>
<td>1-3</td>
<td>ECE 156G</td>
<td>Cooking Curriculum for Young Children</td>
</tr>
<tr>
<td>1-3</td>
<td>ECE 156H</td>
<td>Exploring First and Second</td>
</tr>
<tr>
<td>1-3</td>
<td>ECE 156I</td>
<td>Language Development</td>
</tr>
<tr>
<td>1-3</td>
<td>ECE 156J</td>
<td>Early Literacy Foundations for Young Children</td>
</tr>
<tr>
<td>3</td>
<td>ECE 156K</td>
<td>Early Math Foundations for Young Children</td>
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</tbody>
</table>

Electives (13.5 units)

<table>
<thead>
<tr>
<th>Units</th>
<th>Course Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-3</td>
<td>ECE 133</td>
<td>Understanding Infant Development</td>
</tr>
<tr>
<td>1-3</td>
<td>ECE 134</td>
<td>Understanding Toddler Development</td>
</tr>
<tr>
<td>1-3</td>
<td>ECE 134C</td>
<td>Curriculum with Toddlers</td>
</tr>
<tr>
<td>0.5</td>
<td>ECE 134E</td>
<td>Nurturing Environments for Infants and Toddlers</td>
</tr>
<tr>
<td>1-2</td>
<td>ECE 134N</td>
<td>Infants and Toddlers with Special Needs in the Childcare Program</td>
</tr>
<tr>
<td>1-3</td>
<td>ECE 145</td>
<td>Peace Education and Children’s Literacy</td>
</tr>
</tbody>
</table>

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

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.
2. Integrate principles of working with young children.
3. Introduce to Curriculum for the Young Child 3

Required Courses Units

<table>
<thead>
<tr>
<th>Units</th>
<th>Course Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.5</td>
<td>ECE 156G</td>
<td>Circle Time Activities</td>
</tr>
<tr>
<td>3</td>
<td>ECE 156H</td>
<td>Cooking Curriculum for Young Children</td>
</tr>
<tr>
<td>3</td>
<td>ECE 156J</td>
<td>Superhero and Weapon Play</td>
</tr>
<tr>
<td>3</td>
<td>ECE 156K</td>
<td>Exploring Art with the Young Child</td>
</tr>
<tr>
<td>3</td>
<td>ECE 156L</td>
<td>Fostering First and Second</td>
</tr>
<tr>
<td>3</td>
<td>ECE 156M</td>
<td>Early Literacy Foundations for Young Children</td>
</tr>
<tr>
<td>3</td>
<td>ECE 156N</td>
<td>Early Math Foundations for Young Children</td>
</tr>
<tr>
<td>3</td>
<td>ECE 156P</td>
<td>Early Math Foundations for Young Children</td>
</tr>
<tr>
<td>3</td>
<td>ECE 156Q</td>
<td>Early Math Foundations for Young Children</td>
</tr>
</tbody>
</table>

Total Units 38.5-41.5

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. Integrate principles of cultural and linguistic competency, inclusive practices, and ant-bias perspectives in developing curriculum and implementing developmentally appropriate materials and guidance.
2. Integrate principles of working with young children.

Required Courses Units

<table>
<thead>
<tr>
<th>Units</th>
<th>Course Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.5</td>
<td>ECE 157A</td>
<td>Administration and Supervision of Children’s Programs</td>
</tr>
<tr>
<td>3</td>
<td>ECE 157B</td>
<td>Administration and Supervision of Children’s Programs</td>
</tr>
<tr>
<td>3</td>
<td>ECE 157C</td>
<td>Supervising Adults in the Childcare Setting</td>
</tr>
</tbody>
</table>

Total Units 46.5

*Denotes courses that are part of the Curriculum Alignment Project (CAP) 8 Lower-Division Transfer Program

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.
2. Integrate principles of working with young children.
3. Introduce to Curriculum for the Young Child 3

Required Courses Units

<table>
<thead>
<tr>
<th>Units</th>
<th>Course Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.5</td>
<td>ECE 156G</td>
<td>Circle Time Activities</td>
</tr>
<tr>
<td>3</td>
<td>ECE 156H</td>
<td>Cooking Curriculum for Young Children</td>
</tr>
<tr>
<td>3</td>
<td>ECE 156J</td>
<td>Superhero and Weapon Play</td>
</tr>
<tr>
<td>3</td>
<td>ECE 156K</td>
<td>Exploring Art with the Young Child</td>
</tr>
<tr>
<td>3</td>
<td>ECE 156L</td>
<td>Fostering First and Second</td>
</tr>
<tr>
<td>3</td>
<td>ECE 156M</td>
<td>Early Literacy Foundations for Young Children</td>
</tr>
<tr>
<td>3</td>
<td>ECE 156N</td>
<td>Early Math Foundations for Young Children</td>
</tr>
<tr>
<td>3</td>
<td>ECE 156P</td>
<td>Early Math Foundations for Young Children</td>
</tr>
<tr>
<td>3</td>
<td>ECE 156Q</td>
<td>Early Math Foundations for Young Children</td>
</tr>
</tbody>
</table>

Total Units 33.5-36
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 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)

- ECE 131 Child Growth and Development
- ECE 132 Child, Family and Community
- ECE 142 Niño, familia, y comunidad
- ECE 51 Principles of Working with Young Children
- ECE 53 Introduction to Curriculum for the Young Child

Any ECE courses numbered 1-199

Required (4-5 Units)

- ECE 154 Peace Education and Children’s Literature
- ECE 155A Curriculum for the Young Child
- ECE 155B Curriculum for the Young Child
- ECE 156A Curriculum for the Young Child: Social Knowledge
- ECE 156D Large Motor and Movement
- ECE 156E Exploring Music with the Young Child
- ECE 156G Circle Time Activities
- ECE 156I Cooking Curriculum for Young Children
- ECE 156J Superhero and Weapon Play
- ECE 156K Exploring Art with the Young Child
- ECE 156L Fostering First and Second Language Development
- ECE 156M Early Literacy Foundations for Young Children
- ECE 156N Early Math Foundations for Young Children

Other Required Courses (3 Units)

- ENGL 100 Elements of Writing
- ESL 100 High Advanced Academic ESL
- ENGL 1A/1AH/1AMC/1AMCH

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.

Cabrillo and State Requirements

(24 units to include the following)

- ECE 131 Child Growth and Development
- ECE 132 Child, Family and Community
- ECE 142 Niño, familia, y comunidad
- ECE 51 Principles of Working with Young Children
- ECE 53 Introduction to Curriculum for the Young Child

Any ECE courses numbered 1-199

Required (4-5 Units)

- ECE 131 Child Growth and Development
- ECE 132 Child, Family and Community
- ECE 142 Niño, familia, y comunidad
- ECE 51 Principles of Working with Young Children
- ECE 53 Introduction to Curriculum for the Young Child

Total Units

33-36

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
- ECE 142 Niño, familia, y comunidad
- ECE 51 Principles of Working with Young Children
- ECE 53 Introduction to Curriculum for the Young Child
- ENGL 100 Elements of Writing
- ESL 100 High Advanced Academic ESL
- SPAN 4 Intermediate Spanish II
- SPAN 17 Elementary Spanish for Spanish Speakers II
- ENGL 1A/1AH/1AMC/1AMCH

Total Units

16 - 20

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.

Examine 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 maturation 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.

Examine the developing child in a societal context focusing on the interpersonal relationships of child, family, 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. Hybrid Requisite: Completion of or concurrent enrollment in ECE 54. 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 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
Prerequisite: ECE 33 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 33 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: COMW 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 Lab
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 in the child care setting for children including relevant regulations, standards, policies, and procedures. Emphasizes collaboration with families, health professionals, and agencies. Appropriate for teachers, childcare providers, parents, foster parents, and others who care for young children. May be offered in Spanish or in a Bilingual Format.
Transfer Credit: Transfers to CSU-C-ID: ECE 220

ECE 128  Intermediate Child Care Practicum
2 – 3 units; 6 – 9 hours Laboratory
Prerequisite: ECE 34 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: 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, 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 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 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 134N  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 the cognitive, language, physical, and social/ emotional development of infants and how development is supported through relationships and attachment with their family and caregivers. Focuses on how to: construct knowledge, learn language, and develop relationships, emotional regulations, and autonomy. May be offered in Spanish or in a Bilingual 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.
Repeatable: May be taken a total of 1 time.
Studied children’s literature as a path to peace education for young children. May be offered in English 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 Laboratory/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. Repeatable: May be taken a total of 1 time.
Provides intensive study of some aspect of infant and/or toddler development for early childhood 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.
Repeatable: May be taken a total of 1 time.
Examines the developing child in a societal context focusing on the interrelationships of family, school and community, emphasizing historical and sociocultural factors. Studies the processes of socialization, identity development and the importance of respectful, reciprocal relationship of family, school and community, emphasizing his/her role in the 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 146 The Child with Special Needs in the Child Care Program
2 units; 2 hours Lecture
Prerequisite: ECE 135.
Co-requisite: For sections taught in Spanish or in a Bilingual Format: Concurrent enrollment in an appropriate ESL course.
Repeatable: 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.
Repeatable: 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.
Repeatable: 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.
Repeatable: 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.
Repeatable: 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.
Repeatable: 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 156F 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.
Repeatable: May be taken a total of 1 time.
Introduces concepts and strategies for choosing and presenting developmentally appropriate circle time activities 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 156G Curriculum for the Young Child: 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.
Repeatable: May be taken a total of 1 time.
Studies children’s language and communication 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 156H Early Literacy 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.
Repeatable: May be taken a total of 1 time.
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.
Repeatable: May be taken a total of 1 time.
Studies children’s language and communication 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 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. Repeatable: 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.
Repeatable: May be taken a total of 1 time.
Studies developmentally appropriate practices for creating curricula for young children to promote logical-mathematical thinking and math concept formation. 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. This course presents an overview of the California Child Development Permit. It focuses on building strong partnerships between teachers and families using the family-centered case model. The course content will vary with each offering, as well as prerequisites. 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. This course emphasizes the leadership role of the director in the development of program and personnel procedures that reflect the goals of a program. Topics include goal-setting, team-building, assessment systems, record-keeping, and cost-benefit analysis. The course covers the requirements for the 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 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. This course offers a series of courses on selected aspects of child development with an emphasis on interaction, communication, and guidance skills for parents and caregivers. Course content will vary with each offering, as well as 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 161A-Z-C Curriculum Development in Programs for Young Children
0.5 – 4 units; 0.5 – 4 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 is recommended. Repeatability: May be taken a total of 1 time. This course offers a series of courses on selected aspects of child development with an emphasis on specific curriculum topics. Course content will vary with each offering, as well as prerequisites. Topics may 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/Remote: Completion of or concurrent enrollment in ECE 158. Recommended Preparation: ECE 34; ECE 135. Repeatability: May be taken a total of 1 time. This course offers advanced instruction and support for interns or experienced teachers in a supervised field experience at designated child care development programs. Transfer Credit: Non-transferable.

## ECONOMICS

### ECONOMICS

#### Human Arts and Social Sciences Division

Paul Harrell, Division Dean
Division Office: 168 Ewing Hall
831-479-6202
Cheryl Barkey, Department Chair, (831) 479-6223
Aptos Counseling: (831) 479-6274 for appointment
Watsonville Counseling: (831) 786-4734
Call (831) 479-6259 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 in 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 for 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 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.
  - When a minimum of 2.0 is required for admission, some majors may require a higher GPA.

#### List A - Take one from the following: (3-5 Units)

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>BUS 9</td>
<td>Business Calculus</td>
<td>3</td>
</tr>
<tr>
<td>MATH 18</td>
<td>Finite Mathematics</td>
<td>4</td>
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</table>

#### List B - Take one from the following: (3-5 Units)

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ECON 1A</td>
<td>Introduction to Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 1B</td>
<td>Introduction to Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>MATH 12</td>
<td>Elementary Statistics</td>
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<tr>
<td>MATH 12H</td>
<td>Honors Elementary Statistics</td>
<td>5</td>
</tr>
<tr>
<td>BUS 9</td>
<td>Business Calculus</td>
<td>3</td>
</tr>
</tbody>
</table>

#### Note:

- Any CSU transferable ECON course.
- BUS 9 is an approved substitution for MATH 12/12H if listed as an S/B on the CSU transfer evaluation report.
- Total Units 60
### Economics A.A. Degree

**Model Program for Economics**

An Associate Degree requires 60 units appropriate to your education-al goal, to include general education and at least 18 units in a major. Courses should be selected to meet the lower division major prepara-tion requirements at your intended transfer university - these specific requirements can be found at www.assist.org for 4-year public institu-tions 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 not or may not be appropri-ate 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)**  

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<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 1A</td>
<td>Introduction to Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 1B</td>
<td>Introduction to Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>MATH 13</td>
<td>Finite Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>MATH 18</td>
<td>Business Calculus</td>
<td>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>
<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>
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<tr>
<td>BUS 9</td>
<td>Business Statistics</td>
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**Electives:**

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<tr>
<td>PHILO 49</td>
<td>Intro to Critical Thinking</td>
<td>3</td>
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<tr>
<td>ENGL 2H</td>
<td>Honors Composition and Critical Thinking</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 2</td>
<td>Composition and Critical Thinking</td>
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<tr>
<td>PSYCH 12</td>
<td>Introduction to Cognitive Psychology</td>
<td>3</td>
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<td>SOC 1</td>
<td>Introduction to Sociology</td>
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<td>SOC 1H</td>
<td>Honors Introduction to Sociology</td>
<td>3</td>
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<tr>
<td>SOCE 2</td>
<td>Contemporary Social Problems</td>
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<tr>
<td>SOC 2H</td>
<td>Honors Contemporary Social Problems</td>
<td>3</td>
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</table>

**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, ex-amination 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 fail-ure, 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 Harwell, Division Dean  
Division Office, Room 420  
Cheryl Barkley, Department Chair, (831) 479-6114  
Liberal Studies website: www.cabrillo.edu/academics/education  
Mary Solito, 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:

- Communication: Reading, Writing, Listening, Speaking and/or Convering
- Critical Thinking and Information Competency: Analysis,  
  Computation, Research, Problem Solving
- Global Awareness: An appreciation of Scientific Processes, Global  
  Systems and Civics, and Artistic Variety
- Personal Responsibility and Professional Development: Self-  
  Management and Self-Awareness, Social and Physical Wellness,  
  Workforce Skills

**Associate Degree for Transfer with a Guarantee™**

The Associate in Arts in Elementary Teacher Education for Trans-fer (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 elementa-ry school teaching. Students completing the Associate in Arts in Ele-mentary 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 a particular university or college that is not part of the CSU system. See the 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**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC 80</td>
<td>American Education in a Changing World</td>
<td>2</td>
</tr>
<tr>
<td>EDUC 80L</td>
<td>Education Service Learning Lab</td>
<td>1</td>
</tr>
<tr>
<td>ECE 31</td>
<td>Child Growth and Development</td>
<td>3</td>
</tr>
<tr>
<td>BIO 11A</td>
<td>General Biology</td>
<td>4</td>
</tr>
<tr>
<td>BIO 13A</td>
<td>Biology of People-Anatomy &amp; Physiology</td>
<td>3</td>
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<tr>
<td>BIO 13AL</td>
<td>Biology of People-Anatomy &amp; Physiology Lab</td>
<td>1</td>
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<tr>
<td>PHYS 10H</td>
<td>Introduction to Physics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 10L</td>
<td>Introduction to Physics Lab</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 3</td>
<td>Introductory Inorganic Chemistry</td>
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<tr>
<td>CHEM 3L</td>
<td>Introductory Inorganic Chemistry Lab</td>
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<tr>
<td>CHEM 10</td>
<td>Concepts of Chemistry</td>
<td>4</td>
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<tr>
<td>CHEM 30A</td>
<td>Inorganic Chemistry for Health Occupations</td>
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<tr>
<td>CHEM 32</td>
<td>Chemistry for the Allied Health Major</td>
<td>5</td>
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<tr>
<td>GEOL 10</td>
<td>Physical Geology</td>
<td>4</td>
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<tr>
<td>MATH 15</td>
<td>Number Systems</td>
<td>5</td>
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<tr>
<td>COM 1</td>
<td>Public Speaking</td>
<td>3</td>
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<tr>
<td>ENGL 1A</td>
<td>Honors Public Speaking</td>
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<tr>
<td>ENGL 1AH</td>
<td>College Composition</td>
<td>3</td>
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<tr>
<td>ENGL 1AMC</td>
<td>College Composition: Multicultural Emphasis</td>
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<tr>
<td>ENGL 1AMCH</td>
<td>College Composition: Multicultural Emphasis</td>
<td>3</td>
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<tr>
<td>ENGL 1B</td>
<td>Composition and Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 18H</td>
<td>Composition and Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1BH</td>
<td>Composition and Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1BMC</td>
<td>Comp &amp; Literature: Multicultural Emphasis</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 4</td>
<td>World Regional Geography</td>
<td>3</td>
</tr>
<tr>
<td>HIST 2A</td>
<td>World History to 1500</td>
<td>3</td>
</tr>
<tr>
<td>HIST 17A</td>
<td>United States History to 1865</td>
<td>3</td>
</tr>
<tr>
<td>HIST 17AH</td>
<td>United States History to 1865</td>
<td>3</td>
</tr>
<tr>
<td>PS 1</td>
<td>Introduction to Government</td>
<td>3</td>
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<tr>
<td>PS 1H</td>
<td>Introduction to Government</td>
<td>3</td>
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<tr>
<td>PHI 49</td>
<td>Honors Introduction to Government</td>
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</table>

**List A – Select one course from the following:**  

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 4</td>
<td>Argumentation and Persuasion</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 2</td>
<td>Composition and Critical Thinking</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 2H</td>
<td>Composition and Critical Thinking</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 2MC</td>
<td>Composition and Critical Thinking</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 2MCH</td>
<td>Multicultural Emphasis</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 49</td>
<td>Intro to Critical Thinking</td>
<td>3</td>
</tr>
</tbody>
</table>
**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, reexamining 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.

**List C** – Select up to 12 additional units from the following if needed based on CSU campus requirements

- TA 9 Appreciation of Theatre Arts
- MUS 10 Music Appreciation
- DANCE 1 Dance Appreciation
- MUS 77 Correlation of the Arts
- ASTRO 3 Solar System Astronomy
- or
- ART 2A Drawing and Composition I
- or
- GEOG 1 Physical Geography
- or
- HIST 28 World History: 1500 to Present
- or
- HIST 17B United History since 1865
- or
- HIST 178H Honors United States History since 1865
- or
- HS 10 Personal Health
- or
- MATH 4 Precalculus Algebra and Trigonometry
- or
- MATH 12 Elementary Statistics
- or
- MATH 12H Honors Elementary Statistics
- or
- PSYCH 8 Introduction to Developmental Psychology

All courses except ART 2A, EDUC 80, 80L and CS 1/1L are also General Education courses.

**Total Units** 60

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**Engineering Program for Engineering**

This program has been adopted by the Engineering Liaison Council of the California Interssegmental Council.

The 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 in conjunction 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**

Core Courses (39 Units)

The following core courses is recommended to help determine the field of engineering to pursue:

- ENGR 5 Engineering as a Profession

The following core courses meet lower-division requirements for ALL engineering majors and transfer universities:

- MATH 5A Analytic Geometry and Calculus I
- MATH 5B Analytic Geometry and Calculus II
- MATH 5C Analytic Geometry and Calculus III
- PHYS 4A Physics for Scientists and Engineers I
- PHYS 4B **Physics for Scientists and Engineers II**

The following core courses meet lower-division requirements for MOST engineering majors and transfer universities:

- CHEM 1A General Chemistry I
- CS 11 Introduction to Programming Concepts and Methodology, C++
- or
- CS 12J Introduction to Programming Concepts and Methodology, Java
- or
- ENGR 30 **Computer Applications in Engineering**
- ENGR 10 **Engineering Communication**
- ENGR 15 **Circuits**
- ENGR 25 **Graphics and Design**
- ENGR 35 **Statics**
- ENGR 45 **Engineering Materials**
- MATH 6 Introduction to Linear Algebra
- MATH 7 Introduction to Differential Equations
- PHYS 4C **Physics for Scientists and Engineers III**

The following core courses meet lower-division requirements for SOME engineering majors and transfer universities:

- BIO 9A Molecular, Cellular, and Animal Biology
- BIO 100 Ecology, Evolution, and Plant Biology
- CHEM 1B General Chemistry II
- CHEM 12A Organic Chemistry I
- CHEM 12AL Organic Chemistry Laboratory I
- CHEM 12B Organic Chemistry II
- CHEM 12BL Organic Chemistry Laboratory II
- CS 19 C++ Programming

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/requirements.html. For California private universities and out-of-state universities, go to www.cabrillo.edu/programs.

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**Engineering Outcomes**

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

1. Communication: Reading, Writing, Listening, Speaking, and/or Conceiving
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving
**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 surveying/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.
Repeatable: 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.
Repeatable: 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.
Repeatable: 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.
Repeatable: 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 Required: Completion of or concurrent enrollment in MATH 7.
Recommended Prep: Eligibility for ENGL 1A/1AH/1AMC/1AMCH.
Repeatable: 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.
Repeatable: May be taken a total of 1 time.
Applies principles of engineering design 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 Required: Completion of or concurrent enrollment in ENGR 25.
Recommended Preparation: Assessment into ENGL 1A.
Repeatable: 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 multidiscipline views. 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.
Recommended Preparation: Eligibility for ENGL 1A/1AH/1AMC/1AMCH.
Repeatable: 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 numerical 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.
Repeatable: 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.
Repeatable: May be taken a total of 1 time.
Studies stress, 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.
Repeatable: May be taken a total of 1 time.
Provides an in-depth analysis 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 Required: ENGR 5.
Recommended Preparation: ENGR 25.
Repeatable: 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.
Repeatable: 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

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETECH 24</td>
<td>Introduction to AutoCAD</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 23</td>
<td>3D Animation</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 40</td>
<td>Architecture/Green Design: Principles and Practices</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 60</td>
<td>Architecture/Green Design: Planning and Construction</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 75</td>
<td>BIM and Sustainable Design Strategies</td>
<td>3</td>
</tr>
</tbody>
</table>

### Core Courses (27 units)

- ETECH 24: Introduction to AutoCAD (3 units)
- ETECH 31: Introduction to Electronic Circuit and Schematic Design (3 units)
- ETECH 40: 3D Animation (3 units)
- ETECH 41: Advanced AutoCAD (3 units)
- ETECH 60: Architecture/Green Design: Principles and Practices (3 units)
- ETECH 61: Architecture/Green Design: Planning and Construction (3 units)
- ETECH 62: Architecture/Green Design: Implementation using AutoCAD (3 units)

### Electives

- ETECH 130: Introduction to Creo and Solidworks (3 units)
- ETECH 131: Intermediate Creo and Solidworks (3 units)
- ETECH 199C: Career Work Experience Education (3 units)

Total Units: 60

## Architecture Drafting and Design Skills Certificate

### Learning Outcomes

1. Demonstrate mastery of an architectural knowledge "base equivalent" to obtaining an ADDA certification from American Design Drafting Association. (Global Awareness, Critical Thinking)
2. Design and draft an AEC plan set. (Global Awareness, Professional Development)
3. Troubleshoot and solve design flaws on AEC plan sets. (Critical Thinking)

### Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Units</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>
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<tr>
<td>ETECH 61</td>
<td>Architecture/Green Design: Planning and Construction</td>
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</tr>
<tr>
<td>ETECH 75</td>
<td>BIM and Sustainable Design Strategies</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units: 15-16

## Civil/Survey Drafting Skills Certificate

### Learning Outcomes

1. Demonstrate mastery of an engineering knowledge "base equivalent" to obtaining an AEC certification from American Design Drafting Association. (Global Awareness, Critical Thinking)
2. Design and draft a civil/survey plan set. (Global Awareness, Professional Development)
3. Troubleshoot and solve design flaws on civil/survey plan sets. (Critical Thinking)

### Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ENGR 1A</td>
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</tr>
<tr>
<td>ETECH 24</td>
<td>Introduction to AutoCAD</td>
<td>3</td>
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</tbody>
</table>

Total Units: 7

### Computer Aided Drafting and Design Skills Certificate

### Learning Outcomes

1. Demonstrate mastery of a Computer Aided Drafting and Design knowledge "base equivalent" to obtaining AODA, 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 Number</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>DM 2</td>
<td>Digital Publishing I</td>
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<tr>
<td>DM 4</td>
<td>Digital Graphics</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 40</td>
<td>3D Animation</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 131</td>
<td>Intermediate Creo and Solidworks</td>
<td>3</td>
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</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)

### Required Courses

<table>
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<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETECH 24</td>
<td>Introduction to AutoCAD</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 40</td>
<td>3D Animation</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 41</td>
<td>Intermediate 3D Animation</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 75</td>
<td>BIM and Sustainable Design Strategies</td>
<td>3</td>
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</table>

Total Units: 12-13

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### 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 in electronics, manufacturing, and design drafting. Opportunities await our graduates in 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. Additional course offerings 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

<table>
<thead>
<tr>
<th>Core Courses (27 units)</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETECH 24</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 31</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 40</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 41</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 60</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 75</td>
<td>3</td>
</tr>
<tr>
<td>Core Courses (27 units)</td>
<td>Units</td>
</tr>
<tr>
<td>ETECH 24</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 31</td>
<td>3</td>
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<tr>
<td>ETECH 40</td>
<td>3</td>
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<tr>
<td>ETECH 41</td>
<td>3</td>
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<td>ETECH 60</td>
<td>3</td>
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<tr>
<td>ETECH 61</td>
<td>3</td>
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<tr>
<td>ETECH 62</td>
<td>3</td>
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<tr>
<td>ETECH 75</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 130</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 131</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td>72-75</td>
</tr>
</tbody>
</table>

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### 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. Analyze 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 Number</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>DM 2</td>
<td>Digital Publishing I</td>
<td>4</td>
</tr>
<tr>
<td>DM 4</td>
<td>Digital Graphics</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 40</td>
<td>3D Animation</td>
<td>3</td>
</tr>
<tr>
<td>ETECH 131</td>
<td>Intermediate Creo and Solidworks</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)
Engineering Technology Courses

**ETECH 24 Introduction to AutoCAD**
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ETECH 24 or equivalent skills.
Required Preparation: CABB 106
Repeatability: May be taken a total of 1 time.
Introduces AutoCAD Drafting 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 Courses for the details about this course offering.
Transfer Credit: Transfers to CSU, UC, pending review.

**ETECH 40 3D Animation**
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ETECH 40 or equivalent skills.
Repeatability: May be taken a total of 1 time.
Presents an introduction to 3D animation software to create animation using 3D computer models. Includes advanced 3D modeling, construction, rendering, and animation using cameras, target, and object motion. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Courses for details about this course offering.
Transfer Credit: Transfers to CSU, UC.

**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.
Introduces multiple industry standard Building Information Modeling (BIM) software programs found in the architecture profession. Focuses on the basic concepts and tools needed to create a 3D virtual architectural model. Also introduces a variety of output capabilities including energy analysis software. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Courses for details about this course offering.
Transfer Credit: Transfers to CSU.

**ETECH 45 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 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 Courses for the details about this course offering.
Transfer Credit: Transfers to CSU, UC, pending review.

**ETECH 61 Architecture/Green Design: Planning and Construction**
3 units; 2.5 hours Lecture, 1.5 hours Laboratory
Prerequisite: ETECH 62 or equivalent skills.
Transfer Credit: Transfers to CSU.

**ETECH 62 Architecture/Green Design: Implementation using AutoCAD**
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ETECH 40 or equivalent skills.
Repeatability: May be taken a total of 1 time.
Transfer Credit: Transfers to CSU.

**ETECH 75 BIM and Sustainable Design Strategies I**
3 units; 2 hours Lecture, 4 hours Laboratory
Prerequisite: ETECH 100 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 architectural model. Also introduces a variety of output capabilities including energy analysis software. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Courses for details about this course offering.
Transfer Credit: Transfers to CSU.

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>ENGL 1B</td>
<td>Composition and Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1BH</td>
<td>Honors Composition and Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 18MC</td>
<td>Composition and Literature, Multicultural Emphasis</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 2</td>
<td>Composition and Critical Thinking</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 2H</td>
<td>Honors Composition and Critical Thinking</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 2MC</td>
<td>Composition and Critical Thinking, Multicultural Emphasis</td>
<td>3</td>
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</table>

List A - Select 2 courses from: (6 units) Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ENGL 30A</td>
<td>American Literature</td>
<td>3</td>
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<tr>
<td>ENGL 30B</td>
<td>American Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 46A</td>
<td>Major British Writers I</td>
<td>3</td>
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<tr>
<td>ENGL 46B</td>
<td>Major British Writers II</td>
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</table>

List B - Select one course from: (3 units) Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>ENGL 12A</td>
<td>Fiction Writing</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 12B</td>
<td>Creative Writing: Poetry</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 12C</td>
<td>Creative Writing: Autobiography</td>
<td>3</td>
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<tr>
<td>ENGL 12D</td>
<td>Introduction to Creative Writing</td>
<td>3</td>
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<tr>
<td>ENGL 34</td>
<td>Shakespeare</td>
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<tr>
<td>ENGL 41A</td>
<td>African American Literature: Slave Narrative to 20th Century</td>
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<tr>
<td>ENGL 48A</td>
<td>Mythology and Folklore</td>
<td>3</td>
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List C - Select one course from: (3-5 units) Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>BUS 52</td>
<td>Business Communications</td>
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</tr>
<tr>
<td>ENGL 12C</td>
<td>Creative Writing: Film</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 14A</td>
<td>Fiction Workshop</td>
<td>3</td>
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<tr>
<td>ENGL 14B</td>
<td>Poetry Workshop</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 14C</td>
<td>Screenwriting Workshop</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 14E</td>
<td>Autobiography Workshop</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 23A</td>
<td>Reporting for the News Media</td>
<td>3</td>
</tr>
<tr>
<td>JOURN 23A</td>
<td>Reporting for the News Media</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 24A</td>
<td>Native American Prose and Poetry</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 24B</td>
<td>Native American Prose and Poetry</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 26A</td>
<td>Native American Literature and History I</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 27A</td>
<td>Native American Literature and History II</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 39</td>
<td>Chicano/a-Latina/o Literature</td>
<td>3</td>
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<tr>
<td>ENGL 40</td>
<td>Latin American Literature</td>
<td>3</td>
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<tr>
<td>ENGL 45</td>
<td>World Literature</td>
<td>3</td>
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<tr>
<td>ENGL 49A</td>
<td>The Language of Film: Film History</td>
<td>3</td>
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<tr>
<td>ENGL 49B</td>
<td>The Language of Film: Special Topics in Film</td>
<td>3</td>
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<tr>
<td>TA 9</td>
<td>Appreciation of Theatre Arts</td>
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</tbody>
</table>

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

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


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


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

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


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.
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.
Repeatable: 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.
Repeatable: 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 1A/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. Honors Standing.
Hybrid Requisite: LIBR 10.
Repeatable: 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 with an emphasis on clarity and accuracy. Satisfies both ENGL 1A and multicultural requirement.
Transfer Credit: Transfers to CSU, UC. Not open to students who have completed ENGL 1A/1AH/1AMC/1AMCH. C-ID: ENGL 100

ENGL 1AMC 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.
Repeatable: 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/1AMC/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).
Repeatable: 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 18H.
Repeatable: 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).
Repeatable: May be taken a total of 1 time.
Introduces multicultural literature through reading, writing, and discussion to develop critical and analytical skills. 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 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.
Repeatable: 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.
Repeatable: 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 2/2MC/2MCH. C-ID: ENGL 105

ENGL 2H Honors Composition and Critical Thinking
3 units; 3 hours Lecture
Prerequisite: Honors Standing; ENGL 1A/1AH/1AMC/1AMCH.
Recommended Preparation: ENGL 1B/1BH/1BMC.
Repeatable: 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 & CSU critical thinking requirements (ENGL 2) and Cabrillo multicultural requirement. Honors section stresses rigorous critical 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 2H/2MC/2MCH. C-ID: ENGL 105

ENGL 2MC Composition and Critical Thinking: Multicultural Emphasis
3 units; 3 hours Lecture
Prerequisite: Eligibility for ENGL 1A/1AH/1AMC/1AMCH.
Hybrid Requisite: LIBR 10.
Recommended Preparation: ENGL 1B/1BH/1BMC.
Repeatable: 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 & CSU critical thinking requirements (ENGL 2) and Cabrillo multicultural requirement. 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 2MC 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.
Repeatable: 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 & CSU critical thinking requirements (ENGL 2) and Cabrillo multicultural requirement. Honors section stresses rigorous critical 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 2H/2MC/2MCH. C-ID: ENGL 105

ENGL 12A Fiction Writing
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Repeatable: 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.
Repeatable: 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.
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 1A/1AH/1AMC/1AMCH.
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 poems and analyses of poetry 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: ENGL 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 experiences, as well as key differences between Native experiences in different times and places. 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 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 135

ENGL 34 Shakespeare
3 units; 3 hours Lecture
Prerequisite: ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken a total of 1 time.
Surveys original and 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 gain insight into the cultural dynamics of the African diaspora. 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.
Introduces students to the history of film, film technology, various film genres, styles, 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. 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 100, 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, narrative, 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 students 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.
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 designed to support students who use writing tutorial services on an as-needed basis.

ENGL 549B The Language of Film for Older Adults: Special Topics in Film
0 units; 3 hours Lecture
Introduces students to the history of film, film technology, various film genres, styles, 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 designed to support students who use writing tutorial services on an as-needed basis.

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.

ENGL 115 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 designed to support students who use writing tutorial services on an as-needed basis.

ENGL 549B The Language of Film for Older Adults: Special Topics in Film
0 units; 3 hours Lecture
Introduces students to 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 498.

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 102
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 and ESL 351B

Beginning English Fluency Certificate of Competency
The Beginning English Fluency Certificate of Competency is designed to show that 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 materials. Produce grammatically correct sentences related to survival skills and personal topics appropriate for Beginning-High ESL.

Required Courses
ESL 352A and ESL 352B

Beginning English Fluency Certificate of Competency
The Beginning English Fluency Certificate of Competency is designed to show that 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 materials. Produce grammatically correct sentences related to survival skills and personal topics appropriate for Beginning-High ESL.

Required Courses
ESL 352A and ESL 352B

Beginning English Fluency Certificate of Competency
The Beginning English Fluency Certificate of Competency is designed to show that 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 materials. Produce grammatically correct sentences related to survival skills and personal topics appropriate for Beginning-High ESL.

Required Courses
ESL 352A and ESL 352B

Beginning English Fluency Certificate of Competency
The Beginning English Fluency Certificate of Competency is designed to show that 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.
Intermediate English Fluency Certificate of Competency
The Intermediate English Fluency Certificate of Competency shows that a student has demonstrated proficiency in intermediate English by successfully completing ESL 353A and 353B and can move forward in the noncredit ESL sequence, attempting the Advanced ESL course 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 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 Requirement: LIBR 10
Repeatability: May be taken a total of 1 time.
Provides 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. Transfer Credit: Transfers to CSU, UC pending review.

ESL 15 College Composition for ESL - Linguistic Analysis Plus
3 units; 3 hours Lecture
Corequisite: ESL 15A
Hybrid Requirement: LIBR 10
Repeatability: May be taken a total of 1 time.
Develops high-level grammatical usage, vocabulary development, explicit listening and reading strategies, presentation and pronunciation skills related to the thematic context offered in ESL 1A. ESL 15 must be taken concurrently with ESL 1A. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU, UC pending review.

ESL 100 High Advanced Academic ESL
4 – 6 units; 4 – 6 hours Lecture
Prerequisite: ESL 255 or ESL 256E.
Co-requisite: READ 106
Repeatability: May be taken a total of 1 time.
Develops students’ reading, writing, listening, and speaking skills for success in future academic work. Students read and write a variety of styles and prose common to college and university work. Students will write a minimum of 6,000 words in this course focusing on improved accuracy and usage. This class is the equivalent of ENGL 100, students continue to ENGL 1A and transfer classes.
Transfer Credit: Non-transferable.

ESL 202L Low-Intermediate English Development 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 202R Beginning Reading and Vocabulary
2 – 4 units; 2 – 4 hours Lecture
Repeatability: May be taken a total of 1 time.
Introduces basic reading skills by using a variety of texts while focusing on vocabulary development and reading comprehension. Students identify organizational elements and develop reading strategies by using forms, simple manuals, short articles, and short stories.
Transfer Credit: Non-transferable.

ESL 204R Advanced Reading and Vocabulary
4 units; 4 hours Lecture
Prerequisite: ESL 203UH or ESL 203E.
Repeatability: May be taken a total of 1 time.
Prepares ESL students for mainstream college classes by reviewing a variety of reading skills, strategies, and topics from different academic disciplines, stories or a novel for literacy appreciation. May be offered in a Distance-Learning Format.
Transfer Credit: Non-transferable.

ESL 221A ESL for Child Growth and Development
1 – 3 units; 1 – 3 hours Lecture
Prerequisite: 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 proficiency of 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
Prerequisite: 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
Prerequisite: ESL 253.
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. Designed for ECE students.
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. This course is pass/no pass and operates on a drop-in or appointment basis.
Transfer Credit: Non-transferable.

ESL 255L Low-Intermediate Academic ESL Lab
4 – 6 units; 4 – 6 hours Lecture
Prerequisite: ESL 255.
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 256L 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 254 High-Intermediate Academic ESL
4 – 6 units; 4 – 6 hours Lecture
Prerequisite: ESL 254E.
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
1 – 3 units; 1.5 – 6 hours Laboratory
Prerequisite: ESL 254.
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
0.5 – 2 units; 1.5 – 6 hours Laboratory
Prerequisite: ESL 255.
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 255E 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
Prerequisite: 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.
ESL 260B  ESL Writing Improvement--Beginning 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 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. Transfer Credit: Non-transferable.

ESL 261A  ESL Writing Improvement --Intermediate 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 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. Transfer Credit: Non-transferable.

ESL 261B  ESL Writing Improvement --Advanced 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 intermediate writing. 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.

ESL 270P  Pronunciation Improvement for ESL Students
1 - 4 units; 1 - 4 hours Lecture
Repeatability: May be taken a total of 1 time.
Improves pronunciation for ESL students. Improves accuracy in pronunciation leading to fluency and confidence in speaking English. Focuses on basic survival English skills, English sound/symbol correspondence, and reading and writing of simple English sentences covering topics such as employment, health, food, housing, and travel. May be offered in an Open Entry/Open Exit format.

ESL 280A-Z  ESL Special Topics
1 - 3 units; 1 - 3 hours Lecture
Repeatability: May be taken a total of 1 time.
Designed for self-study, ESL students who wish to focus on a specific area of English development. Each topic (A-Z) may be repeated twice. Transfer Credit: Non-transferable.

ESL 351A  ESL Literacy-Low
0 units; 108 hours Lecture
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.

ESL 351B  ESL Literacy-High
0 units; 108 hours Lecture
Recommended Preparation: ESL 351A.
Emphasizes listening, speaking, reading and writing skills at a high literacy level. Focuses on survival in English skills, English sound/symbol correspondence, and reading and writing of simple English sentences covering topics such as employment, health, food, housing, and travel. May be offered in an Open Entry/Open Exit format.

ESL 352A  ESL Beginning-Low
0 units; 108 hours Lecture
Recommended Preparation: ESL 351B.
Emphasizes listening/speaking and reading/writing skills at a beginning-low level. Focuses on understanding and participating in basic communication and conversation in social situations. Students read simple passages, and generate and write sentences related to basic communications, housing, food, health, and transportation. May be offered in an Open Entry/Open Exit format.

ESL 352B  ESL Beginning-High
0 units; 108 hours Lecture
Recommended Preparation: ESL 352A.
Emphasizes listening/speaking and reading/writing skills at a beginning-high level. Focuses on understanding and participating in basic communication and conversation in social situations. Students read simple passages, and generate and write sentences related to transportation, employment, and community resources. May be offered in an Open Entry/Open Exit format.

ESL 353A  ESL Intermediate-Low
0 units; 108 hours Lecture
Recommended Preparation: ESL 352B.
Emphasizes listening/speaking 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 convey messages. May be offered in an Open Entry/Open Exit format.

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 want 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.

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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 want 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 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) is designed 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 in the Cabrillo College Catalog. The following is required for all A.A. 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.
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.
Provides 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
Repeatable 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
Repeatability: May be taken a total of 1 time.
Provides 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.

FIRE TECHNOLOGY
see PUBLIC SAFETY page 297

FOREIGN LANGUAGES
see WORLD LANGUAGES page 335

FRENCH
Business, English, and Language Arts Division
James Weckler, Division Dean
Division Office, Room 301
Francisco Iglesias, 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 show proficiency in understanding, speaking, and writing in French and in both written and oral expression in everyday situations.
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 Environmental Science):
1. Communication: Reading, Writing, Listening, Speaking, and/or Conversing
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving

Certificate 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 A through F Must include completion of Areas 1 and 2 (English and Math)
   - For CSU: Completion of a minimum of 30 units taken from Areas A through F 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
GEOMETRY
Human Arts and Social Sciences Division
Paul Harvell, Division Dean
Division Office, Room 420
Cheryl Barkey, Department Chair, (831) 479-6223
Desidre 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
www.cabrillo.edu/programs

Associate Degree for Transfer
A Degree with a Guarantee.®

Geography A.A.-T Degree Transfer
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 physical sciences, social sciences and humanities. Geographers make maps and use tools to understand how places differ from one another and for interpreting and explaining Earth's landscapes, peoples, places, and environments.

The Associate in Arts in Geography for Transfer (A.A.-T in Geography) is designed to provide students with a solid foundation for transfer to a baccalaureate degree program in Geography at a CSU campus. Students completing the Associate in Arts in Geography for Transfer (A.A.-T in Geography) are guaranteed admission, some majors may require a higher GPA. For detailed information about the Associate in Arts in Geography for Transfer (A.A.-T in Geography), please see 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 Conceiving
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.cabrillo.edu 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 vary or may not be appropriate depending on your specific goal. Please see a counselor for advisement to transfer to any 4-year institution.

GEOMETRY
Human Arts and Social Sciences Division
Paul Harvell, Division Dean
Division Office, Room 420
Cheryl Barkey, Department Chair, (831) 479-6223
Desidre 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
www.cabrillo.edu/programs

Associate Degree for Transfer
A Degree with a Guarantee.®

Geography A.A.-T Degree Transfer
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 tools to understand 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, national, and local arenas; 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.

- CSU or IGETC for CSU General Education Requirements 37-39 Units
  - Core (7 Units)
    - MATH 12 Elementary Statistics ......................................................5
    - GEOL 20 Historical Geology ...........................................................4
    - ITAL 3 Intermediate Italian I ............................................................5
    - HORT 2 Horticulture I ................................................................. 4
    - GEOG 1 Physical Geography ..........................................................3
    - PHYS 10 Engineering Physics .......................................................4
    - CHEM 10 General Chemistry .......................................................5
    - ENGR 5 Intro to Engineering ..........................................................4

- Approved Electives 5 Units
  - Transferable to a major in Geography

- Electives (to achieve the required total of 30) chosen from Area B list in the A.S. Degree requirements, Computer Science, or Engineering.

- Total Units 60

- • Minimum grade-point average (GPA) of at least 2.0 in all CSU-transferable units.
- • Completion of 60 CSU-transferable semester units.
Geography A.A. Degree

Model Program

An Associate Degree requires 60 units appropriate to your education- al goal, to include general education and at least 18 units in a major. Courses should be selected to meet the lower-division major prepara- tion requirements at your intended transfer university; these specific requirements can be found at www.assist.org for 4-year public institu- tions 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 appropri- ate depending on your specific goals. 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 Conver- sing
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving
3. Global Awareness: An appreciation of Scientific Processes, Global Systems and Civils, and Artistic Variety

A.A. General Education

Core Courses (15 Units) 30 Units

| GEOL 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, waters, landforms, soil, and the biosphere. Emphasizes interrelationships between human and envi- ronmental systems. May be offered in a Distance-Learning Format. |
| GEOL 1L | Physical Geography Laboratory | 1 unit; 3 hours Laboratory | Hybrid Requirement: Completion of or concurrent enrollment in GEOL 1. Eligibility for MATH 154. |

GEOL 2 | Cultural Geography | 3 units; 3 hours Lecture | Introduces the cultural geography of the United States. Includes diversity in human populations and their origins, diffusion, and current distributions. Examines demography, social customs, languages, religions, political units and nationalism, and economic and physical systems. Exploring the human and physical landscapes of California and the development of the state as a result of human interactions with the envi- ronment. 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 For- mat. |

Transfer Credit: Transfers to CSU, UC - C-ID: GEOL 110

GEOL 4 | World Regional Geography | 3 units; 3 hours Lecture | Repeatability: May be taken a total of 1 time. |

Transfer Credit: Transfers to CSU, UC - C-ID: GEOL 125

GEOL 5 | California Geography | 3 units; 3 hours Lecture | Repeatability: May be taken a total of 1 time. |

Transfer Credit: Transfers to CSU, UC - C-ID: GEOL 140

GEOL 17 | Introduction to Geographic Information Systems and Techniques | 3 units; 3 hours Lecture | Prerequisite: GEOL 1. |

Transfer Credit: Transfers to CSU, UC - C-ID: GEOL 155

Model Program

The Cabrillo College Core Competencies (with an emphasis in the study of Geography):
1. Communication: Reading, Writing, Listening, Speaking, and/or Convering
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving
3. Global Awareness: An appreciation of Scientific Processes, Global Systems and Civils, and Artistic Variety

A. A. General Education

Core Courses (15 Units) 30 Units

| GEOL 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, waters, landforms, soil, and the biosphere. Emphasizes interrelationships between human and envi- ronmental systems. May be offered in a Distance-Learning Format. |
| GEOL 1L | Physical Geography Laboratory | 1 unit; 3 hours Laboratory | Hybrid Requirement: Completion of or concurrent enrollment in GEOL 1. Eligibility for MATH 154. |

GEOL 2 | Cultural Geography | 3 units; 3 hours Lecture | Introduces the cultural geography of the United States. Includes diversity in human populations and their origins, diffusion, and current distributions. Examines demography, social customs, languages, religions, political units and nationalism, and economic and physical systems. Exploring the human and physical landscapes of California and the development of the state as a result of human interactions with the envi- ronment. 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 For- mat. |

Transfer Credit: Transfers to CSU, UC - C-ID: GEOL 110

GEOL 4 | World Regional Geography | 3 units; 3 hours Lecture | Repeatability: May be taken a total of 1 time. |

Transfer Credit: Transfers to CSU, UC - C-ID: GEOL 125

GEOL 5 | California Geography | 3 units; 3 hours Lecture | Repeatability: May be taken a total of 1 time. |

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Transfer Credit: Transfers to CSU, UC - C-ID: GEOL 125

Transfer Credit: Transfers to CSU, UC - C-ID: GEOL 140

Transfer Credit: Transfers to CSU, UC - C-ID: GEOL 155

Learning Outcomes

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

Core Courses (15 Units) 30 Units

| GEOL 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, waters, landforms, soil, and the biosphere. Emphasizes interrelationships between human and envi- ronmental systems. May be offered in a Distance-Learning Format. |
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Transfer Credit: Transfers to CSU, UC - C-ID: GEOL 155

Learning Outcomes

The Cabrillo College Core Competencies (with an emphasis in the study of Geography):
1. Communication: Reading, Writing, Listening, Speaking, and/or Convering
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving
3. Global Awareness: An appreciation of Scientific Processes, Global Systems and Civils, and Artistic Variety

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

Take Required Courses (28 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<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>MATH 1A</td>
<td>Analytic Geometry and Calculus I</td>
<td>5</td>
</tr>
<tr>
<td>MATH 1B</td>
<td>Analytic Geometry and Calculus II</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>
</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 master's 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, geology, and environmental science. The department presents the following suggested Model Program for Geology:

**Model Program for Geology**

**A.S. General Education Courses**

Core Courses plus Approved Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 10</td>
<td>Physical Geology</td>
<td>4</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>MATH 1A</td>
<td>Analytic Geometry and Calculus I</td>
<td>5</td>
</tr>
<tr>
<td>MATH 1B</td>
<td>Analytic Geometry and Calculus II</td>
<td>5</td>
</tr>
<tr>
<td>MATH 5A</td>
<td>Analytic Geometry and Calculus III</td>
<td>5</td>
</tr>
<tr>
<td>MATH 5B</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>
</tr>
<tr>
<td>PHYS 4C</td>
<td>Physics for Scientists and Engineers III</td>
<td>5</td>
</tr>
</tbody>
</table>

Approved Electives (0-2 Units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGR 1A</td>
<td>Surveying</td>
<td>4</td>
</tr>
<tr>
<td>ENR 10</td>
<td>Introduction to Environmental Science</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 15</td>
<td>Environmental Geology</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 20</td>
<td>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>4</td>
</tr>
<tr>
<td>OCEAN 10</td>
<td>Introduction to Oceanography</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Units: 60

**Geology Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 10</td>
<td>Physical Geology</td>
<td>4 units; 3 hours Lecture, 3 hours Laboratory</td>
</tr>
<tr>
<td>GEOL 15</td>
<td>Environmental Geology</td>
<td>3 units; 3 hours Lecture</td>
</tr>
</tbody>
</table>

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. Some of the class hours for this course may be offered in a Distance-Learning Format.

Transfer Credit: Transfers to CSU; UC. C-ID: GEOL 110

Transfer Credit: Transfers to UC.

**GEOL 20** Historical Geology

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 20</td>
<td>Historical Geology</td>
<td>4 units; 3 hours Lecture, 3 hours Laboratory</td>
</tr>
</tbody>
</table>

Repeatability: May be taken a total of 1 time.

Introduces Earth’s history with an emphasis on Western North America and California. Subtopics 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

Transfer Credit: Transfers to UC.

**GEOL 25** Geology of National Parks

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 25</td>
<td>Geology of National Parks</td>
<td>3 units; 3 hours Lecture</td>
</tr>
</tbody>
</table>

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.

Transfer Credit: Transfers to UC.

**GEOL 27** Geology of the Pinnacles National Park

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 27</td>
<td>Geology of the Pinnacles National Park</td>
<td>1 unit; 1 hour Lecture, 0.5 hour Laboratory</td>
</tr>
</tbody>
</table>

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.

Transfer Credit: Transfers to UC.

**GEOL 30** Field Geology of Point Lobos and Big Sur

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 30</td>
<td>Field Geology of Point Lobos and Big Sur</td>
<td>1 unit; 0.75 hours Lecture, 0.75 hours Laboratory</td>
</tr>
</tbody>
</table>

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.

Transfer Credit: Transfers to 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 illness 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. Emphasis includes 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 Conquering
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 - specific requirements can be found at www.assist.org for 4-year public institutions in California. Please see a counselor for advisement to ensure you are taking the best possible courses given your goal.

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

A.A. General Education 30 Units

<table>
<thead>
<tr>
<th>Core Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 4</td>
<td>Human Anatomy</td>
</tr>
<tr>
<td>BIO 5</td>
<td>Human Physiology</td>
</tr>
<tr>
<td>CHEM 30A</td>
<td>Inorganic Chemistry for Health Occupations</td>
</tr>
<tr>
<td>CHEM 30B</td>
<td>Introductory Organic Chemistry and Biochemistry for Health Occupations</td>
</tr>
<tr>
<td>HS 10</td>
<td>Personal Health</td>
</tr>
<tr>
<td>NUTR 20</td>
<td>Nutrition</td>
</tr>
</tbody>
</table>

Recommended from Related Disciplines:

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 6</td>
<td>Microbiology</td>
</tr>
<tr>
<td>ECON 1A</td>
<td>Introduction to Macroeconomics</td>
</tr>
<tr>
<td>ECON 1B</td>
<td>Introduction to Microeconomics</td>
</tr>
<tr>
<td>PSYCH 1</td>
<td>General Psychology</td>
</tr>
<tr>
<td>PSYCH 1H</td>
<td>Honors General Psychology</td>
</tr>
<tr>
<td>SOC 1</td>
<td>Introduction to Sociology</td>
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<tr>
<td>or</td>
<td></td>
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<tr>
<td>SOC 1H</td>
<td>Honors Introduction to Sociology</td>
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<tr>
<td>or</td>
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<tr>
<td>SOC 2</td>
<td>Contemporary Social Problems</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>SOC 2H</td>
<td>Honors Contemporary Social Problems</td>
</tr>
</tbody>
</table>

Electives: Any Course Numbered 1-99

Total Units 60

Health Science/Community Health Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HS 10</td>
<td>3 units; 3 hours Lecture</td>
<td>Personal Health</td>
</tr>
<tr>
<td>HS 12</td>
<td>3 units; 3 hours Lecture</td>
<td>Stress Management</td>
</tr>
<tr>
<td>HS 15</td>
<td>3 units; 3 hours Lecture</td>
<td>Human Sexuality</td>
</tr>
<tr>
<td>HS 22</td>
<td>3 units; 3 hours Lecture</td>
<td>The Wellness Challenge</td>
</tr>
</tbody>
</table>

HS 10 Personal Health
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 12 Stress Management
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.

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 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 adapting and maintaining a healthy lifestyle, including assessments and reflection of health decisions. Transfer Credit: Transfers to CSU, UC.

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 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 gain 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 for careers in education, government, 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 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.
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 West-
ern civilization up to 1648: ancient Greek, Roman, Medieval, Renais-
sance, 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 West-
ern civilization up to 1648: ancient Greek, Roman, Medieval, Renais-
sance, 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 West-
ern civilization since 1648: emphasizing nationalism, rationalism, gen-
der, 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 West-
ern civilization since 1648: emphasizing nationalism, rationalism, gen-
der, industrialization, imperialism, and the World Wars. May be offered in a Distance-Learning Format. 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 180

HIST 6 History of the Middle East
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 1A/1AH/1AMC/1AMCH.
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 Em-
pire, Imperialism, Colonialism and Nationalism, Revolutions, Western
involvement in the Middle East, Israeli-Arab conflicts, OPEC, and
the Role of Fundamentalism. Critical, analytical written work is the primary
means of evaluation.
Transfer Credit: Transfers to CSU; UC.

HIST 7 History of England
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 1A/1AH/1AMC/1AMCH.
Examines the history of England, with emphasis on social, cultural,
and political history of the United Kingdom and the United States. May be offered in a Distance-Learning Format. 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.
Examines the social, economic, and political history of the United States
and its role in the Civil War. May be offered in a Distance-Learning
Format. 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.
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. 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.
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.
Examines the history of the United States from the Civil War to World
War II. May be taken a total of 1 time.
Transfer Credit: Transfers to CSU; UC. C-ID: HIST 130

HIST 16A Latin America to 1825
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 1A/1AH/1AMC/1AMCH.
Examines the social, political, economic, and diplomatic history of Latin
America from the Pre-Columbian period through the late 18th to early
19th centuries examining conquest, resistance, and dissolution of colonial rule. Critical, analytical written work is the primary means of evaluation.
Transfer Credit: Transfers to CSU; UC.

HIST 16B Latin America since 1825
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 1A/1AH/1AMC/1AMCH.
Examines the 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.
Examines the social, political, economic, and diplomatic history of Mexico from
the Pre-Columbian civilizations through the Hispanic conquest to the
present. Critical, analytical written work is the primary means of evalu-
ation.
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.
Examines 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 na-
tional and antebellum eras, and the Civil War. May be offered in a Di-
tance-Learning Format. 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 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.
Examines the general outlines of Chinese history, along with more fo-
cused 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 writ-
ten work is the primary means of evaluation.
Transfer Credit: Transfers to CSU; UC.

HIST 17B United States History since 1865
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken a total of 1 time.
Surveys the political, economic, social, and diplomatic developments of the United States from the Reconstruction period to the present
21st Century era of Globalization. Emphasis is placed on the historical
backgrounds of contemporary American policies and problems. Criti-
cal, analytical written work is the primary means of evaluation.
May be offered in a Distance-Learning Format. Satisfies U.S. History require-
ment.
Transfer Credit: Transfers to CSU; UC. C-ID: HIST 140

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 the political, economic, social, and diplomatic developments of the United States from the Reconstruction period to the present
21st Century era of Globalization. Emphasis is placed on the histori-
cal backgrounds of contemporary American policies and problems. Critical, analytical written work is the primary means of evaluation.
Highlights student research, writing, and reporting, both individually and as part of a learning community, and will often meet in a seminar format.
Satisfies U.S. History requirement.
Transfer Credit: Transfers to CSU; UC. 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 fo-
cused 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 writ-
ten work is the primary means of evaluation.
Transfer Credit: Transfers to CSU; UC.
HIST 19C  Introduction to Japanese History
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken a total of 1 time.
Emphasizes the general features of Japan's society, economy, government, religion, philosophy and art. Critical, analytical written work is the primary means of evaluation.
Transfer Credit: Transfers to CSU, UC.

HIST 20A-Z  American 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.
The development and analysis of a particular facet of American history, e.g., of United States foreign policy, American popular culture, the Civil War, etc. Critical, analytical written work is the primary means of evaluation.
Transfer Credit: Transfers to CSU, UC, with conditions: Students must retain a copy of the course outlines, the course syllabus and work completed. Cross-listed courses; this course is contingent upon a review of the course outline and other materials by the UC transfer campus.

HIST 21A  Chicano History to 1865
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken a total of 1 time.
The cultural, economic, literary, and political history of the Mexican American, in the general context of U.S. History, to 1865. Covers the scope of U.S. History to 1865, analyzing the role that Chicanos have played in the United States and the changes that role has undergone. Critical, analytical written work is the primary means of evaluation. Satisfies U.S. History requirement.
Transfer Credit: Transfers to CSU, UC.

HIST 21AH  Honors Chicano History to 1865
3 units; 3 hours Lecture
Prerequisite: Honors Standing.
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken a total of 1 time.
The cultural, economic, literary, and political history of the Mexican American, in the context of general U.S. History, to 1865. Covers the scope of U.S. History to 1865, analyzing the role that Chicanos have played in the United States and the changes that role has undergone. Critical, analytical written work is the primary means of evaluation. Satisfies U.S. History requirement.
Transfer Credit: Transfers to CSU, UC.

HIST 21B  Chicano History since 1865
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken a total of 1 time.
Traces the development of the Chicano in the United States, in the context of general U.S. History, from 1865 to the present. Covers the scope of U.S. History, analyzing the role that Chicanos have played in the United States and the changes that role has undergone. Gives emphasis to the role and life of the Mexican American residing in California. Critical, analytical written work is the primary means of evaluation. Satisfies the U.S. History requirement.
Transfer Credit: Transfers to CSU, UC.

HIST 21BH  Honors Chicano History since 1865
3 units; 3 hours Lecture
Prerequisite: Honors Standing.
Recommended Preparation: ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken a total of 1 time.
In the context of general U.S. History, traces the development of the Chicano in the United States from 1865 to the present. Covers the scope of U.S. History, analyzing the role that Chicanos have played in the United States and the changes that role has undergone. Gives emphasis to the role and life of the Mexican American residing in California. Highlights student research, writing, and reporting, both individually and as part of a learning community, and will often meet in a seminar format. Critical, analytical written work is the primary means of evaluation. Satisfies the U.S. History requirement.
Transfer Credit: Transfers to CSU, UC.

HIST 22  History of Contemporary Chicano Movements
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 1A/1AH/1AMC/1AMCH.
Repeatability: May be taken a total of 1 time.
Covers the origins of the growing politicization among Mexican Americans, with emphasis on the roles of particular groups such as the Brown Berets, the United Mexican-American Students, the Mexican-American Student Confederation, the Crusade for Justice, the Alianza, and the National Farm Workers Union. Critical, analytical written work is the primary means of evaluation.
Transfer Credit: Transfers to CSU, UC.

HIST 23  History of Contemporary Chicano Movements
3 units; 3 hours Lecture
Recommended Preparation: Eligibility for ENGL 1A/1AH/1AMC/1AMCH.
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.
Transfer Credit: Transfers to CSU, UC.

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 early colonial period 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.
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.
Transfer Credit: Transfers to CSU, UC.

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 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.
Studies the history of African Americans from 1619 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.
Explores 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
Business, English, and Language Arts Division
James Weckler, Division Dean
Division Office: Room 301 Division Office, Room 420
Letitia Scott-Curtis, Lead Faculty, (831) 479-6353
Carolyn Jackson, Director, (831) 477-3505
Aptos Counseling: (831) 479-6724 for appointment
Watsonsville Counseling: (831) 786-4734
http://www.cabrillohonors.org

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 Contract.
See the Honors Transfer Program webpage "Courses Available for Honors Credit" for the List A and List B courses.
Students achieving the Certificate of Achievement will have "Honors Scholar" posted on their transcript.

HONORS COURSES
Students must be enrolled in the Honors Transfer Program to register for the following honors courses:
ANTHR 1H, ANTH 2H, ANH 11H, ANH 13H, COMM 1H, ENGL 1AH, ENGL 1AMCH, ENGL 1BH, ENGL 2H, ENG 2MCH, HIST 4AH, HIST 4BH, HIST 14H, HIST 17AH, HIST 17BH, HIST 21AH, HIST 21BH, HONRS 1H, HONRS 2H, LIBR 10H, MATH 12H, PHLO 10H, PSY 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 1AH/1AMCH/1AMCH.
Repeatability: May be taken a total of 1 time.
This 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 1AH/1AMCH/1AMCH.
Repeatability: May be taken a total of 1 time.
This interdisciplinary colloquium focuses on refining presen- tation skills for the Honors Symposium.
Transfer Credit: Transfers to CSU

HORTICULTURE
Natural and Applied Sciences Division
Jamie Alonzo, Division Dean
Division Office: Room 701
Peter Shaw, Department Chair, (831) 479-6241
Aptos Counseling: (831) 479-6724 for appointment
Watsonsville Counseling: (831) 786-4734
Call (831) 479-6328 for more information
http://www.cabrillo.edu/programs

Associate Degree for a Transfer Degree
A Degree with a Guarantee.

Agriculture Plant Science A.S.-T Transfer Degree
The Horticulture program prepares students for entry level to manage- ment jobs and self-employment in diverse horticulture business es. As well as students choosing 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 pro- duction 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. Cabillo offers options for degrees in Agriculture. The first option list- ed below is the Associate in Science in Agriculture Plant Science for Transfer (A.S.—T in Agriculture Plant Science), which is intended for stu- dents who plan to transfer and complete a bachelors degree in Agri- culture or a similar major at a CSU campus (CSU Chico, CSU Poly Po- mona 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 Agri- culture 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 either areas of concentration, and eight Skills Certifi- cates in Horticulture are available.
The following is required for all A.A.-T or A.S.—T degrees:
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 IntersegmentalGeneral 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 37-39
Core Courses - Take all Core Courses  Units
HORT 1A Basic Horticulture .......................................................4
HORT 2 Soil Science and Management .......................................4
CHEM 1A General Chemistry ....................................................5
ECO 1B Introduction to Microeconomics ..................................3
BUS 9 Business Statistics .........................................................3
MATH 12 Elementary Statistics .................................................5
MATH 12H Honors Elementary Statistics .................................5
PSYCH 2A Statistics for Behavioral Sciences .............................3

List A - Select one course from:
HORT 62 Fall Plant Materials and Design ..................................3
HORT 63 Spring Plant Materials and Design ..............................3

List B - Other general courses recommended, if needed on specific campus

Core Courses (37-41 units)
Core Courses (37-41 units)

Units
BIO 11A General Biology ..........................................................4
CHEM 1B General Chemistry ....................................................5
HORT 1B Basic Horticulture: Crop Production ..........................3
PHYS 10 Introduction to Physics .................................................3
PHYS 10L Introduction to Physics Lab .........................................1

Total Units
BIO, CHEM, PHYS and all Statistics courses are also General Education courses.

- 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 IntersegmentalGeneral Education Transfer Curriculum (IGETC) pattern.

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CSU or IGETC General Education Requirements 37-39
Core Courses - Take all Core Courses  Units
HORT 1A Basic Horticulture .......................................................4
HORT 1B Basic Horticulture: Crop Production ..........................4
HORT 2 Soil Science and Management .......................................4
HORT 52 Greenhouse Design and Operation .............................3
HORT 54 Business Aspects of Horticulture ..............................3
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 19C Career Work Experience Education ..........................1
HORT 70 Organic Agriculture ...................................................4

Approved Electives:
Agriculture Plant Science A.S.-T Transfer Degree

General Horticulture & 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)
HORT 1A Basic Horticulture .......................................................4
HORT 1B Basic Horticulture: Crop Production ..........................4
HORT 2 Soil Science and Management .......................................4
HORT 52 Greenhouse Design and Operation .............................3
HORT 54 Business Aspects of Horticulture ..............................3
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 19C Career Work Experience Education ..........................1
HORT 70 Organic Agriculture ...................................................4
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)

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<tr>
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<tr>
<td>HORT 58</td>
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<td>4</td>
</tr>
<tr>
<td>HORT 100A</td>
<td>Plant Propagation</td>
<td>3</td>
</tr>
<tr>
<td>HORT 125</td>
<td>Hydroponic and Substrate Production</td>
<td>3</td>
</tr>
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<td>HORT 150</td>
<td>Pest Management</td>
<td>4</td>
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Other Required Courses (3 - 6 Units)

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

Total Units 40-47

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)

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</tr>
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<td>Business and Technical Writing</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units 42 - 45

Arboriculture Skills Certificate

Learning Outcomes
1. Accurately identify local trees found in Santa Cruz County. (Critical Thinking, Professional Development)

Required Course

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HORT 1A</td>
<td>Basic Horticulture</td>
<td>4</td>
</tr>
<tr>
<td>or HORT 1B</td>
<td>Basic Horticulture: Crop Production</td>
<td>4</td>
</tr>
<tr>
<td>or HORT 18</td>
<td>Basic Horticulture</td>
<td>4</td>
</tr>
<tr>
<td>or HORT 172</td>
<td>Arboriculture</td>
<td>3</td>
</tr>
<tr>
<td>or HORT 173</td>
<td>Landscape Pruning</td>
<td>1</td>
</tr>
<tr>
<td>or HORT 199C</td>
<td>Career Work Experience Education</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Units 15

General Horticulture 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>
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<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
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<td>HORT 173</td>
<td>Landscape Pruning</td>
<td>1</td>
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<tr>
<td>HORT 199C</td>
<td>Career Work Experience Education</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Units 17

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>
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<tbody>
<tr>
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<td>Basic Horticulture: Crop Production</td>
<td>4</td>
</tr>
<tr>
<td>HORT 52</td>
<td>Greenhouse Design and Operation</td>
<td>3</td>
</tr>
<tr>
<td>HORT 100A</td>
<td>Plant Propagation</td>
<td>1-3</td>
</tr>
<tr>
<td>HORT 150</td>
<td>Pest Management</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Units 16 - 18

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>
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<td>HORT 199C</td>
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<td>1</td>
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</tbody>
</table>

Total Units 17

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>
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<tbody>
<tr>
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<td>Soil Science and Management</td>
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<tr>
<td>HORT 58</td>
<td>Irrigation Systems Design and Management</td>
<td>4</td>
</tr>
<tr>
<td>HORT 160B</td>
<td>Edible Landscaping</td>
<td>3</td>
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<tr>
<td>HORT 176</td>
<td>Permaculture Design</td>
<td>3</td>
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</tbody>
</table>

Total Units 14

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>
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<tr>
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<tbody>
<tr>
<td>HORT 2</td>
<td>Soil Science and Management</td>
<td>4</td>
</tr>
<tr>
<td>HORT 70</td>
<td>Organic Agriculture</td>
<td>4</td>
</tr>
<tr>
<td>HORT 71</td>
<td>Organic Food Production 1</td>
<td>4</td>
</tr>
<tr>
<td>HORT 72</td>
<td>Organic Food Production 2</td>
<td>1</td>
</tr>
<tr>
<td>HORT 125</td>
<td>Hydroponic and Substrate Production</td>
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Total Units 17

Arboriculture Skills Certificate

Learning Outcomes
1. Accurately identify local trees found in Santa Cruz County. (Communication, Critical Thinking, Professional Development)

Required Course

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</table>

Total Units 17

General Horticulture 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. (Communication, Professional Development)

Required Courses

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<td>HORT 150</td>
<td>Pest Management</td>
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</tbody>
</table>

Total Units 16 - 18

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

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Total Units 17

Permaculture Skills Certificate

Learning Outcomes
1. Evaluate a site and identify its assets for permaculture.
2. Design a landscape using permaculture principles.

Required Courses

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Total Units 14

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

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</table>

Total Units 17
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-P5 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.  
Examines 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, graphing 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-P5 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 system 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, Califor- nia 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.  
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 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 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 IOA 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.  
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: 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.  
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: 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.  
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: 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 – 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  Arborculture
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, pruning, 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
Human Arts and Social Sciences Division
Paul Harwell, Division Dean
Division Office, Room 420
Patrick Meyer, Department Chair, (831) 479-6210
Aptos Counseling: (831) 479-6274 for appointment
Watsonville Counseling: (831) 786-4734
Call (831) 479-6266 or (831) 479-5087 for more information
http://www.cabrillo.edu/programs

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

A.S. General Education Core Courses (26-28 units)

Electives: (Any Course numbered 1-199) (1 - 4.5 units)
Total Units: 60

HUMAN SERVICES A.S. Degree

Introduction to the Human Services ............................................................... 3
Practices in the Human Services ................................................................. 3
Introduction to Counseling and Case Management .......................................... 3
Human Services Practicum I ........................................................................ 1-2
Alcohol and Drug Human Services Practicum I ............................................... 1-2
General Psychology ......................................................................................... 3
Honors General Psychology ........................................................................... 3
Personal and Social Adjustment .................................................................. 3
Relationships: Marriage and the Family ....................................................... 3
Intercultural Communication ...................................................................... 3
Contemporary Social Problems .................................................................. 3
Approved Electives from any course or Specialty below (10 units)........................ 1 - 4

Any Human Services (HSERV) class ............................................................... 1 - 4
Introduction to Microsoft Office ..................................................................... 3 - 4
Computer Proficiency .................................................................................. 3
College Success ............................................................................................. 3
Child Growth and Development .................................................................. 3
Child, Family and Community ...................................................................... 3
Human Services Practicum I ......................................................................... 1 - 2
Alcohol and Drug Human Services Practicum I ............................................. 1 - 2
Personal Health ............................................................................................. 3
First Aid: Responding to Emergencies .......................................................... 3
Health Care Communication ....................................................................... 3
Introduction to Developmental Psychology .................................................... 3
Introduction to Abnormal Psychology ........................................................... 3
Death and Dying ........................................................................................... 3
Elementary Spanish I .................................................................................... 5
Introduction to Women’s Studies .................................................................. 3

Drug and Alcohol Studies Courses

Introduction to the Human Services ............................................................... 3
Alcohol, Drugs, and Society .......................................................................... 3
Alcoholism and Drug Addiction: Intervention, Treatment, and Recovery ....... 3
Physiology and Pharmacology: Alcohol and Other Drugs ............................ 3
Prevention: Alcohol and Other Drugs ........................................................... 3
Ethics: Personal and Professional Growth in the Human Services ................. 2 - 4

Human Services | 227
Skilled 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 care management including multicultural awareness for entry-level employment in the drug and alcohol treatment field.

Required Units

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<tr>
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<th>Course Title</th>
<th>Units</th>
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<td>HSERV 50</td>
<td>Introduction to the Human Services</td>
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<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>
</tr>
<tr>
<td>HSERV 55B</td>
<td>Human Services Practicum II</td>
<td>1-2</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>
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<tr>
<td>or PSYCH 29ABC</td>
<td>Relationships: Marriage and the Family</td>
<td>3</td>
</tr>
<tr>
<td>or SOC 2</td>
<td>Contemporary Social Problems</td>
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<tr>
<td>or SOC 2H</td>
<td>Honors Contemporary Social Problems</td>
<td>3</td>
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</table>

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSERV 50</td>
<td>Introduction to the Human Services</td>
<td>3</td>
</tr>
<tr>
<td>HSERV 51</td>
<td>Practices in the Human Services</td>
<td>3</td>
</tr>
<tr>
<td>HSERV 52</td>
<td>Introduction to Counseling and Case Management</td>
<td>3</td>
</tr>
<tr>
<td>HSERV 55A</td>
<td>Human Services Practicum I</td>
<td>1-2</td>
</tr>
<tr>
<td>HSERV 55B</td>
<td>Human Services Practicum II</td>
<td>1-2</td>
</tr>
<tr>
<td>HSERV 56A</td>
<td>Alcohol and Drug Human Services Practicum I</td>
<td>1-2</td>
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<tr>
<td>and HSERV 56B</td>
<td>Alcohol and Drug Human Services Practicum II</td>
<td>1-2</td>
</tr>
<tr>
<td>or HSERV 56C</td>
<td>Alcohol and Drug Addiction</td>
<td>1-2</td>
</tr>
<tr>
<td>HSERV 58</td>
<td>Physiology and Pharmacology: Alcohol and Other Drugs</td>
<td>3</td>
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</tbody>
</table>

Total Units: 31-38

Human Services Courses

HSERV 50  Introduction to the Human Services
3 units; 3 hours Lecture
Co-requisite: HSERV 55A or HSERV 55B
Repeatable: 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 55B
Recommended Preparation: HSERV 55A or HSERV 55B
Repeatable: 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
Repeatable: 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
Repeatable: 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
Repeatable: 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, UCI.

HSERV 55A  Human Services Practicum I
1 – 2 units; 3 – 6 hours Laboratory
Hybrid Requisite: HSERV 50 or 51
Repeatable: May be taken a total of 1 time.
Omits 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
Repeatable: May be taken a total of 1 time.
Omits 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
Repeatable: May be taken a total of 1 time.
Omits 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 56B  Alcohol and Drug/Human Services Practicum II
1 – 2 units; 3 – 6 hours Laboratory
Transfer Credit: Transfers to CSU.

Other Required Courses (3-6 units)

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

Total Units: 31-38

Human Services Certificate of Achievement

Learning Outcomes

1. Communication: Reading, Writing, Listening, Speaking, and/or Conversing
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving
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: Prevention, 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, after-care 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 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, counselors and clients' rights, child and adult abuse issues, countertransference, stress management, and professional development.
Transfer Credit: Non-transferable.

ITALIAN

ITALIAN Business, English, and Language Arts Division
James Weckler, Division Dean
Division Office, Room 301
Francisco Hijuezo, 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

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 two years of high school Italian, 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

JAPANESE Business, English, and Language Arts Division
James Weckler, Division Dean
Division Office, Room 301
Francisco Hijuezo, 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

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.
**Journalism | 233**

### Core Courses (9 units)

<table>
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<tr>
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<th>Units</th>
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<tbody>
<tr>
<td>JOURN 21</td>
<td>Mass Communications</td>
<td>3</td>
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<tr>
<td>JOURN 23A</td>
<td>Reporting for the News Media</td>
<td>3</td>
</tr>
<tr>
<td>JOURN 54A</td>
<td>Newspaper Production: Reporting and Photography</td>
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<tr>
<td>JOURN 54B</td>
<td>Newspaper Production: Editing</td>
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### Approved Electives (6 units)

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<tbody>
<tr>
<td>AP 9A</td>
<td>Beginning Photography</td>
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<tr>
<td>ART 27</td>
<td>Graphic Design</td>
<td>3</td>
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<tr>
<td>ART 28</td>
<td>Lettering/Typography</td>
<td>3</td>
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<tr>
<td>JOURN 35</td>
<td>Writing for the Broadcast Media</td>
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<tr>
<td>JOURN 19PC</td>
<td>Career Work Experience Education</td>
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<tr>
<td>DM 1</td>
<td>Introduction to Digital Media</td>
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<td>DM 2</td>
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<td>COMM 10</td>
<td>Communication-Process</td>
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### Other Required Courses (3 units)

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<tr>
<td>ENGL 100</td>
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<tr>
<td>ESL 100</td>
<td>High Advanced Academic ESL</td>
<td>4-6</td>
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### Total Units

18 - 21
Kinesiology | 235

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 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 Movement-Based Courses requirement if they are documented as lower-division major preparation for the similar major at a CSU campus. Students may also substitute a higher level course (i.e. level B or C).

### Kinesiology A.A.-T Requirements

**Core Courses (11 units)**

- **KIN 0** Introduction to Kinesiology: 3
- **KIN 2** Beginning Swimming: 0.5-2
- **KIN 6** Beginning Water Polo: 0.5-2
- **KIN 6A** Beginning Water Aerobics: 0.5-2
- **KIN 6B** Intermediate Water Aerobics: 0.5-2
- **KIN 6C** Intermediate Water Polo: 0.5-2
- **KIN 6D** Advanced Water Polo: 0.5-2

**Dance Courses**

- **DANCE 2A** Introduction to Dance I: 0.5-3
- **DANCE 2B** Introduction to Dance II: 0.5-3
- **DANCE 4** Contemporary Modern Dance I: 0.5-3
- **DANCE 5** Contemporary Modern Dance II: 0.5-3
- **DANCE 7** Ballet I: 0.5-3
- **DANCE 8** Ballet II: 0.5-3
- **DANCE 9A** Jazz Dance I: 0.5-3
- **DANCE 9B** Jazz Dance II: 0.5-3
- **DANCE 10A** Intermediate Jazz Dance I: 0.5-3
- **DANCE 10B** Intermediate Jazz Dance II: 0.5-3
- **DANCE 12A** Choreography I: 0.5-3
- **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 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 21A** Ballroom Dance I: 0.5-3
- **DANCE 21B** Ballroom Dance II: 0.5-3
- **DANCE 31** Swing Dance: 0.5-3

**Fitness Courses**

- **DANCE 3AP** Dance Conditioning/Plates I: 0.5-3
- **DANCE 3BP** Dance Conditioning/Plates II: 0.5-3
- **KIN 22L** Strength Training: 0.5
- **KIN 23A** Fitness and Conditioning I: 0.5-1
- **KIN 23B** Fitness and Conditioning II: 0.5-1
- **KIN 24L** Lifetime Fitness: 0.5-3
- **KIN 27A** Beginning Weight Training: 0.5-2
- **KIN 27AL** Weight Training Lab A: 0.5-2
- **KIN 27B** Intermediate Weight Training B: 0.5-2
- **KIN 27BL** Weight Training Lab B: 0.5-2
- **KIN 31A** Beginning Total Fitness: 0.5-2
- **KIN 31AL** Total Fitness Lab A: 0.5-2
- **KIN 31B** Intermediate Total Fitness: 0.5-2
- **KIN 31BL** Total Fitness Lab B: 0.5-2
- **KIN 34A** Beginning Bootcamp Fitness: 0.5-2
- **KIN 34B** Beginning Bootcamp Fitness II: 0.5-2
- **KIN 35A** Beginning Cross Training: 0.5-2
- **KIN 35B** Intermediate Cross Training: 0.5-2
- **KIN 37A** Beginning Hatha Yoga: 0.5-2
- **KIN 37B** Intermediate Hatha Yoga: 0.5-2
- **KIN 38A** Beginning Yoga and Stress Reduction: 0.5-2
- **KIN 38B** Intermediate Yoga and Stress Reduction: 0.5-2
- **KIN 39A** Beginning Gyrokinesia® Movement Yoga: 0.5-2
- **KIN 39B** Intermediate Gyrokinesia® Movement Yoga: 0.5-2
- **KIN 55** Sports Conditioning: 0.5-3

**Specific Course Offerings**

- **KIN 28** Beginning Yoga: 0.5-2
- **KIN 28A** Intermediate Yoga: 0.5-2
- **KIN 28B** Advanced Yoga: 0.5-2
- **KIN 41A** Beginning Golf Course Play: 0.5-2
- **KIN 41B** Intermediate Golf Course Play: 0.5-2
- **KIN 43A** Beginning Tennis: 0.5-2
- **KIN 43C** Intermediate Tennis: 0.5-2
- **KIN 46B** Advanced Volleyball: 0.5-2
- **KIN 46C** Advanced Baseball: 0.5-2
- **KIN 49A** Beginning Indoor Soccer-Futsal: 0.5-2
- **KIN 51A** Intermediate Indoor Soccer-Futsal: 0.5-2
- **KIN 52A** Beginning Ultimate Frisbee: 0.5-2
- **KIN 52B** Intermediate Softball: 0.5-2
- **KIN 54A** Beginning Volleyball: 0.5-2
- **KIN 54B** Intermediate Volleyball: 0.5-2
- **KIN 54C** Advanced Volleyball: 0.5-2
- **KIN 56A** Beginning Beach Volleyball: 0.5-2
- **KIN 56B** Intermediate Beach Volleyball: 0.5-2

**List A: Take two courses from two different departments.**

**BIO, CHEM, First Aid, and Statistics and PHYS. (6-10 Units)**

- **BIO 9A** Molecular, Cellular, and Animal Biology: 5
- **BIO 9B** Ecology, Evolution, and Plant Biology: 5
- **BIO 11A** General Biology: 4
- **CHEM 30A** Inorganic Chemistry for Health Occupations: 4
- **CHEM 30B** Introductory Organic Chemistry and Biochemistry for Health Occupations: 4
- **CHEM 1A** General Chemistry I: 5
- **CHEM 32** Chemistry for the Allied Health Major: 5
- **CHEM 13** First Aid: Responding to Emergencies: 3
- **MATH 12** Elementary Statistics: 5
- **MATH 12H** Honors Elementary Statistics: 5
- **PSYCH 10L** Statistics for Behavioral Sciences: 3
- **PHYS 2A** General Physics I: 4
- **PHYS 4A** Physics for Scientists and Engineers I: 5
- **PHYS 10** Introduction to Physics: 3

**List B: Take two additional courses beyond those listed above.**

**Kinesiology A.A.-DE Degree**

### Learning Outcomes

1. Communication: Reading, Writing, Listening, Speaking, and/or Conversing
2. Critical Thinking and Information Competency: Analysis, Computation, Research, Problem Solving
3. Global Awareness: An appreciation of Scientific Processes, Global Systems and Cultures, and Artistic Variety
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.
Transfer Credit: Transfers to CSU.
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, CCAA eligibility requirements, and NCAA/NIAA 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 4 LA 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 4 LB Intermediate-Level Personal Training Lab
1 unit; 2 hours Laboratory
Prerequisite: KIN 4 LA.
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 4 LC Advanced-Level Personal Training Lab
1 unit; 2 hours Laboratory
Prerequisite: KIN 4 LB.
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 4 LD Expert-Level Personal Training Lab
1 unit; 2 hours Laboratory
Prerequisite: KIN 4 LC.
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 E and F as well as the Cal-North Goalkeeper Certificate.
Transfer Credit: Transfers to CSU.
KIN 8A Beginning Exercise and Nutrition for Student Athletes
2 units; 1 hour Lecture, 2 hours Laboratory
Prerequisite: KIN 4 LC.
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 injuries to student-athletes.
Provides student athletes with an interdisciplinary approach to the study of human movement 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
Hybrid Requisite: Completion of or concurrent enrollment in KIN 10A.
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 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.
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 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 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 10C Athletic Training: Kinesiology of the Lower Limb
3 units; 2 hours Laboratory
Prerequisite: KIN 10B.
Repeatability: May be taken a total of 1 time.
Provides the opportunity to apply the skills and knowledge acquired in KIN 10B, and provides practical experience in the area of lower limb injuries.
Provides the opportunity to apply the skills and knowledge acquired in KIN including the proper communication of fitness instructions.
Transfer Credit: Transfers to CSU.
KIN 10D Athletic Training: Upper Limb Injuries
3 units; 2 hours Laboratory
Prerequisite: KIN 10B.
Repeatability: May be taken a total of 1 time.
Provides the opportunity to apply the skills and knowledge acquired in KIN including the proper communication of fitness instructions.
Transfer Credit: Transfers to CSU.
KIN 10E Athletic Training: Spine Injuries
3 units; 2 hours Laboratory
Prerequisite: KIN 10B.
Repeatability: May be taken a total of 1 time.
Provides the opportunity to apply the skills and knowledge acquired in KIN including the proper communication of fitness instructions.
Transfer Credit: Transfers to CSU.
KIN 10F Athletic Training: Head and Neck Injuries
3 units; 2 hours Laboratory
Prerequisite: KIN 10B.
Repeatability: May be taken a total of 1 time.
Provides the opportunity to apply the skills and knowledge acquired in KIN including the proper communication of fitness instructions.
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.

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
Prerequisite: KIN 27AL.
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 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, with limits: Any or all KIN activity courses combined: maximum credit - 4 units.

KIN 27CL Clinical Experience in Kinesiology
1 – 2 units; 2 – 4 hours Laboratory
Prerequisite: KIN 27B.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity courses combined: maximum credit - 4 units

KIN 27DL 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 27FL 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 instruction for the intermediate student on the biomechanics of strength training, muscle trainability, and training principles using machines, free weights, and body weight.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN activity courses combined: maximum credit - 4 units.

KIN 31A Beginning Total Fitness
0.5 – 2 units; 1 – 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 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 35A Beginning 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 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.
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 40B Intermediate Golf 0.5 – 2 units; 1 – 4 hours Laboratory Prerequisite: KIN 40A. 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 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 42C  Advanced Pickleball 0.5 – 2 units; 1 – 4 hours Laboratory
Prerequisite: KIN 42B.
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.

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 44A  Beginning Hiking 0.5 – 3 units; 1 – 6 hours Laboratory
Prerequisite: KIN 44A.
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 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 47A  Beginning 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 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
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 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 51A  Beginning 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 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 in 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 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 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 53A  Beginning 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 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
Repeatability: May be taken a total of 1 time.
Recommended Preparation: KIN 54B.
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.
Provides instruction on the techniques and strategies of swimming for the intermediate student.
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 for the intermediate swimmer including water safety, basic strokes and techniques, deep water skills, and conditioning activities.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN Activity courses combined: maximum credit - 4 units.

KIN 61A  Beginning Swim Fitness
0.5 – 2 units; 1 – 4 hours Laboratory
Repeatability: May be taken a total of 1 time.
Provides instruction in 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 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 techniques 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 flexibility through non-swimming water exercise emphasizing low impact on joints for the beginning student. Can be used for rehabilitation and as a cross-training activity for athletes.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN Activity courses combined: maximum credit - 4 units.

KIN 62B  Intermediate Water Aerobics
0.5 – 2 units; 1 – 4 hours Laboratory
Prerequisite: KIN 62A.
Repeatability: May be taken a total of 1 time.
Provides cardiovascular conditioning, muscle strengthening, and flexibility through non-swimming water exercise emphasizing low impact on joints for the intermediate student. Can be used for rehabilitation and as a cross-training activity for athletes.
Transfer Credit: Transfers to CSU; UC, with limits: Any or all KIN Activity courses combined: maximum credit - 4 units.
KIN 63A Beginning Water Polo
0.5 – 2 units; 1 – 4 hours Laboratory
Repeatability: May be taken a total of 1 time.
Provides instruction on the skills and team strategies of water polo for the beginning student.
Transfer Credit: Transfers to CSU, UC, with limits: Any or all KIN activity courses combined: maximum credit - 4 units.
KIN 63B Intermediate Water Polo
0.5 – 2 units; 1 – 4 hours Laboratory
Prerequisite: KIN 63A.
Repeatability: May be taken a total of 1 time.
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.
KIN 63C Advanced Water Polo
0.5 – 2 units; 1 – 4 hours Laboratory
Prerequisite: KIN 63B.
Repeatability: May be taken a total of 1 time.
Provides instruction in the skills and strategies of water polo for the advanced student.
Transfer Credit: Transfers to CSU, UC, with limits: Any or all KIN activity courses combined: maximum credit - 4 units.
KIN 64 Lifeguard Training
2 units; 1 hour Lecture, 2 hours Laboratory
Recommended Preparation: Ability to swim 500 yards continuously, demonstrating stroke proficiency with crawl and breaststroke. Ability to surface dive to a depth of 7' and recover a 10-pound brick.
Repeatability: May be taken a total of 1 time.
Provides American Red Cross certification in Lifeguarding, First Aid, and CPR.
Provides information and training for lifeguards in pool safety and pool management.
Transfer Credit: Transfers to CSU, UC.
KIN 65A Masters Swimming
0.5 – 2 units; 1 – 4 hours Laboratory
Recommended Preparation: Introduction or exposure to all four competitive swim strokes as well as being water safe.
Repeatability: May be taken a total of 1 time.
Provides instruction in propulsion techniques of the butterfly, backstroke, breaststroke, and freestyle swim strokes used in competitive swimming.
Transfer Credit: Transfers to CSU, UC.

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) 479-6224 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 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</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC 8</td>
<td>Introduction to Latino/a Studies</td>
<td>3</td>
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</tbody>
</table>

Select 6 units from the following courses (6 Units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HST 16C</td>
<td>History of Mexico</td>
<td>3</td>
</tr>
<tr>
<td>HST 21A</td>
<td>Chicano History to 1865</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>Honor's Chicano History to 1865</td>
<td>3</td>
</tr>
<tr>
<td>HST 21B</td>
<td>Chicano History since 1865</td>
<td>3</td>
</tr>
</tbody>
</table>

Select 3 units from the following courses: (3 Units) Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BBS 32</td>
<td>Issues of Linguistic and Cultural Diversity in Education, History and Politics</td>
<td>3</td>
</tr>
<tr>
<td>HST 16A</td>
<td>Latin America to 1825</td>
<td>3</td>
</tr>
<tr>
<td>HST 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</th>
<th>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 Dances of Mexico I</td>
<td>0.5 – 3</td>
</tr>
<tr>
<td>DANCE 16B</td>
<td>Baile Folklórico: Regional Dances of Mexico II</td>
<td>0.5 – 3</td>
</tr>
<tr>
<td>ENGL 39</td>
<td>Chicano/o-Latino/a Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 40</td>
<td>Latin American Literature</td>
<td>3</td>
</tr>
<tr>
<td>MUS 111A</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
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 cultural experiences, 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 judgment, 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
Art Photography 15A, 35A, 35H, 45 (Begin Fall ‘16), 55#

Group B:

English 1B, 2B, 3B, 4B, 5B, 6B, 7B, 8B, 9B, 10B, 11B, 12B, 13B, 14B
History 2A#, 2B#, 4A, 4AH, 4BH, 6A, 6AH, 7A, 7AH, 8A, 8AH, 9A, 9AH

Group C:

Business 9
Comm 1, 1H, 2, 4, 10

Electives (any course numbered 1-199) ........................................... 21 units

Interdisciplinary Studies Courses ......................................................... 18 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

Group B:

Anthropology 24, 24H, 26, 67, 74, 8A, 17A, 30#
Bilingual/Literatural Studies 32A
Communication Studies 7, 12W
Early Childhood Education 31, 32
Economics 1A, 1B
English 27A, 27B
Geography 28A, 46, 5
Health Science 15
History 2A, 2A#, 6A, 6AH, 6BH, 6HA, 9, 11, 14#, 14H*,15E, 16A, 16A#, 16B, 16A#, 17A*, 17B*, 17B#1, 19B#, 19C#, 21A*, 21A#, 21B#, 21B#, 21B*, 21B#, 24, 24A#, 24B#, 27B#, 29A#, 29B#, 29B#1, 29B#
Journalism 21
Political Science 17#, 17H, 2, 2#
Psychology 1, 1H, 2B, 6, 8, 12, 16, 31, 33
Sociology 1, 1H, 2H, 3A, 3, 5, 8A#, 9A, 10, 12
Women’s Studies 1, 2A, 11

Electives (any course numbered 1-199) ............................................. 3-15 units

Total Units required for A.A. Non 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

LIBRARY

Library Learning Resources Center
Georg Romero, Director of Library/Learning Resources
Library, Building 1000
(831) 479-6473
http://go.cabrillo.edu/library

Digital Literacy Certificate of Competency

The certificate of competency in digital literacy is designed to accommodate 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 Digital Literacy I
or
LIBR 401 Digital Literacy I
and
LIBR 402 Digital Literacy II
or
LIBR 403 Digital Literacy II

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 searches 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
Recommened 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 searches 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.

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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 Digital Literacy I
or
LIBR 401 Digital Literacy I
and
LIBR 402 Digital Literacy II
or
LIBR 403 Digital Literacy II

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 searches 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.

LIBR 203 Tutoring Methods
1 unit; 1 hour Lecture
Repeatability: May be taken a total of 1 time.
Teaches methods for tutoring with special emphasis on learning theory, communication, and tutoring students with disabilities. Provides coursework needed to earn tutor certification. Transfer Credit: Non-transferable.

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 bachelor's degree in Mathematics or related STEM field at a CSU campus.

The certificate of completion in basic mathematics skills is designed to strengthen pre-algebra level math skills. The noncredit courses are designed to cover core community building, learning skills material, and mathematical topics central to the level of math students are preparing for.

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 110: Whole Numbers and Decimals
- MATH 115: Fractions
- MATH 116: Ratios, Proportions and Percentages

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 are designed to cover core 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.

Mathematics A.S. Degree

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 to complete 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 be chosen or may be appropriate depending on your specific goal. Please see a counselor for advisement for transfer to any 4-year institution.

A.S. General Education Core Courses (18 units)

- MATH 5A: Analytic Geometry and Calculus I
- MATH 5B: Analytic Geometry and Calculus II
- MATH 2B: Vector Calculus

Approved Electives (21 units)

- MATH 13: Introduction to Probability
- MATH 14: Calculus III
- MATH 15: Linear Algebra
- PHYS 4A: Physics for Scientists and Engineers I
- PHYS 4B: Physics for Scientists and Engineers II
- CHEM 1A: General Chemistry I
- CHEM 1B: General Chemistry II
- CHEM 1C: General Chemistry III

Total Units: 39

“Spring only,” “Fall only.”

Note: No other math class counts toward an associate degree in mathematics.

General Information about Meeting Prerequisites

A minimum grade of “C” is required in the prerequisite course for all transfer-level courses except MATH 12. It is strongly recommended that prerequisite course work not be more than two years old. Verification of prerequisites will be required and will be computer enforced for transfer-level courses except MATH 12.

Students should be sure their records have been entered into the Cabrillo computer system before attempting to enroll. Course prerequisites should be met depending on your specific goal. Please see a counselor for advising to strengthen pre-algebra level math skills. The noncredit courses are designed to cover core community building, learning skills material, and mathematical topics central to the level of math students are preparing for.

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 300: Math PLUS: Study Skills
- MATH 305: Math PLUS: Pre-Algebra Review

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 are designed to prepare for transfer-level math courses except MATH 12.

Students should be sure their records have been entered into the Cabrillo computer system before attempting to enroll. Course prerequisites should be met depending on your specific goal. Please see a counselor for advisement to strengthen pre-algebra level math skills. The noncredit courses are designed to cover core community building, learning skills material, and mathematical topics central to the level of math students are preparing for.

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 300: Math PLUS: Study Skills
- MATH 305: 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 arithmetic computations on algebraic expressions and solving equations, inequalities, and systems of equations.

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 needed for completion cover community building, learning skills material, and mathematic topics central to the level of math students are preparing for.

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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 sub-systems. 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 discrete mathematical systems including methods of proof and graph theory and network models, and efficiency of algorithms. Offered spring only.
Transfer Credit: Non-transferable.

MATH 112 Pre-Statistics
5 units, 5 hours Lecture
Prerequisite: MATH 254S or MATH 254CM or MATH 254B or equivalent skills.
Develops quantitative reasoning skills needed for elementary statistics and graph theory. Offered only. May 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 142 or MATH 142B 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 unsuccessful 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. Covers linear, exponential, and logarithmic functions, systems of linear equations and graphs, systems of linear inequalities, and systems of inequalities. Offered fall only. May not be taken Pass/No Pass.
Transfer Credit: Non-transferable.

MATH 152 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. Continues development of algebra skills acquired in elementary algebra, which include the system of real numbers, polynomials, algebraic equations (linear, systems of linear, quadratic, and applications). The characteristics and properties of linear and quadratic functions are studied in detail, with an introduction to negative exponents, systems of linear equations in three variables, complex rational expressions, complex numbers, inverse, exponential and logarithmic functions, conic sections, and non-linear systems. Problem-solving skills are developed to encourage students to use their basic knowledge of algebra to explore problems. May not be taken Pass/No Pass. May be offered in a Distance-Learning Format.
Transfer Credit: Non-transferable.

MATH 152B Intermediate Algebra - Second Half
5 units; 4 hours Lecture, 4 hours Laboratory
Prerequisite: MATH 152A or MATH 152B or equivalent skills.
Repeatability: May be taken a total of 1 time. Presents the second half of Intermediate Algebra and is designed for a wide variety of students, including those who have been unsuccessful in MATH 152, are math anxious, or desire a slower paced, year-long version of MATH 152. When followed by MATH 152C satisfies Cabrillo's math graduation requirement for Associate of Arts and Associate of Science Degree. Covers linear, exponential, and logarithmic functions, systems of linear equations and graphs as well as linear, exponential, and logarithmic functions and equations. Offered fall only. May not be taken Pass/No Pass.
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 and MATH 350D and MATH 350E or equivalent skills.
Repeatability: May be taken a total of 1 time.
Provides 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 geometry.

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 or equivalent skills.
Repeatability: May be taken a total of 1 time.
Provides 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 geometry.

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.
Provides 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 geometry.

MATH 158B  Algebra Review- Basic Factoring
0.5 unit; 1.5 hours Lecture
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.

MATH 158FT  Field Teaching for Math and Science
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.
Introduces the 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 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
3 units; 3 hours Laboratory
Recommended Preparation: MATH 4 with a "B" or better in 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 SC.
Transfer Credit: Non-transferable.

MATH 190A-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 the prospective math or science major some of the tools and skills that assist scientists in their work. Covers the general framework and philosophy of the scientific method, which forms the basis of the adoption and rejection of any theory in science.
Transfer Credit: Non-transferable.

MATH 245A  Essential Mathematics - First Half
4 units; 4 hours Lecture
Repeatability: May be taken a total of 1 time.
Introduces the first half of Essential Mathematics and along with MATH 254B is equivalent to MATH 245CM or 254SI. Covers arithmetic procedures involving whole numbers, fractions, and decimals integrated with proportions.
Transfer Credit: Non-transferable.

MATH 254A  Essential Mathematics - Second Half
4 units; 4 hours Lecture
Prerequisite: MATH 254 or equivalent skills.
Repeatability: May be taken a total of 1 time.
Introduces the second half of Essential Mathematics and is intended only for students who have successfully completed MATH 254A. Covers integers, percents, linear equations, measurements, geometry, and statistics.
Transfer Credit: Non-transferable.

MATH 254CM  Essential Mathematics-Computer Mediated
2 units; 6 hours Laboratory
Prerequisite: MATH 254 or equivalent skills.
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, decimals, 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 component.
Transfer Credit: Non-transferable.

MATH 258A  Math PLUS: Study Skills
0 units; 9 hours Laboratory
Presents study methods and learning techniques designed to strengthen students' math skills.
Mathematics

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  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 K. FitzGerald, PhD
HAWK Division, Associate Dean for Allied Health, SDLC & APE
Pamela Sanborn, Department Chair (831) 479-6438
Apitos 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/ai/

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

Core Courses (39 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
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<tbody>
<tr>
<td>MA 70</td>
<td>Medical Terminology .......................... 3</td>
</tr>
<tr>
<td>MA 100</td>
<td>Medical Assistant Essentials ............... 4</td>
</tr>
<tr>
<td>MA 115</td>
<td>Administrative Skills for Medical Assistants .. 8</td>
</tr>
<tr>
<td>MA 125*</td>
<td>Clinical Skills for Medical Assistants I ...... 4</td>
</tr>
<tr>
<td>MA 135**</td>
<td>Clinical Skills for Medical Assistants II ...... 6</td>
</tr>
<tr>
<td>MA 170</td>
<td>Medical Terminology - Structure &amp; Function and Disease Processes of the Human Body ........ 4</td>
</tr>
<tr>
<td>MA 173A</td>
<td>Medical Law &amp; Ethics .................................. 2</td>
</tr>
<tr>
<td>MA 184</td>
<td>Health Care Communication .................... 2</td>
</tr>
<tr>
<td>CABT 38</td>
<td>Introduction to Microsoft Office .............. 3-4</td>
</tr>
<tr>
<td>MA 101</td>
<td>Medical Assisting Externship .................. 3</td>
</tr>
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</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 Assistant 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). 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.

Medical Office Receptionist Skills Certificate

Phlebotomy Technician Skills Certificate

Medical Assistant (MA) Program

MA 100 Medical Assistant Essentials ............... 4
MA 101 Medical Assisting Externship .................. 3
MA 102 Phlebotomy Externship ......................... 2
MA 103 Medical Terminology .......................... 3

Total Units 9

MA 104 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 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 Assisting Externship (MA 101)

MA 101 Medical Assisting Externship .................. 3

MA 102 Phlebotomy Externship ......................... 2
MA 103 Medical Terminology .......................... 3

Total Units 9

MA 184 Health Care Communication .................... 2
CABT 38 Introduction to Microsoft Office .............. 3-4
MA 101 Medical Assisting Externship .................. 3

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

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<tr>
<td>MA 105</td>
<td>Administrative Skills for Medical Office ... 4</td>
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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.

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<td>MA 130AL</td>
<td>Phlebotomy Lab .................................... 1</td>
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<tr>
<td>MA 130B</td>
<td>Phlebotomy-Advanced ............................ 1.5</td>
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<tr>
<td>MA 102</td>
<td>Phlebotomy Externship .......................... 2</td>
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<td>Medical Terminology .......................... 3</td>
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To comply with state and local regulations for health care providers, students participating in externships through the Cabrillo College Medical Assisting program are required to meet vaccination and drug testing requirements and provide documentation to the Student Health Services Center before being placed at an externship site. Students are also required to complete criminal background checks and may be required to undergo fingerprinting.

Medical Assisting | 259258 | Mathematics
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 unsupervised. 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 medical assisting students in a healthcare facility. Students are supervised and unsupervised. 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. 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 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 basic 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. Students 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 130B. All students must pass a national phlebotomy certification 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
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 136 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 137 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 138 Medical Office Procedures
4 units; 4 hours Lecture
Repeatability: May be taken a total of 1 time. Teaches medical assisting students administrative skills and basic financial management utilized in outpatient medical settings. Transfer Credit: Non-transferable.

MA 139 Medical Law & Ethics
4 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 180 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 181 Medical Insurance
3 units; 3 hours Lecture
Prerequisite: MA 70. 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 Medical Assisting | 261260 | Medical Assisting
Medical Assisting | 261
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.

METEOROLOGY
see GEOGRAPHY page 207
MUS 75  Musical Theatre Production ........................................... 1 - 3
MUS 76  Jazz Singers ................................................................... 1

Instrumental Option:
MUS 18A  Intermediate Wind (Band) Instruments ....................... 1
MUS 18B  Intermediate Jazz Band .................................................. 1
MUS 20  Intermediate Orchestra Instruments ............................... 1
MUS 25  Chamber Music Ensemble ............................................... 1
MUS 47  Guitar Ensemble ................................................................ 1
MUS 49  College Symphonic Winds ............................................ 1
MUS 52  Percussion Ensemble ...................................................... 1
MUS 58  Cabrillo Symphonic Orchestra ........................................ 1
MUS 68  Piano Ensemble ............................................................. 1
MUS 86CP  The Collaborative Performer ................................ ...... 1

Jazz Option on Instrumental:
MUS 46  Jazz Ensemble .................................................................. 1
MUS 50  Jazz Repertory Workshop ................................................. 1
MUS 56  Latin American Music Ensemble ..................................... 1

Applied Electives (3 Units):
Units
Guitar

MUS 26A  Beginning Jazz/Rock Guitar Techniques ....................... 1
MUS 26B  Advanced Jazz/Rock Guitar Techniques ....................... 1
MUS 27  Beginning Popular Guitar Techniques ............................ 1
MUS 33A  Classical Guitar I ............................................................. 1

Piano

MUS 22A  Intermediate Piano ......................................................... 1
MUS 23  Advanced Piano ............................................................... 1
MUS 51B  Class Piano II ................................................................. 1

Strings

MUS 19AA  Beginning Strings I ....................................................... 1
MUS 19BB  Intermediate Strings I .................................................... 1

Winds/Brass

MUS 18A  Beginning Wind (Band) Instruments ............................. 1
MUS 18CB  Intermediate Concert Band ........................................ 1

Percussion

MUS 52A  Latin American Drumming .......................................... 1

Applied Music

MUS 16  Applied Music: Winds, Strings, Brass, Piano, Voice, and Percussion ......................................................... 1

Music Education

MUS 18A  Beginning Wind (Band) Instruments ............................. 1
MUS 19AA  Beginning Strings I ....................................................... 1
MUS 33A  Classical Guitar I ............................................................. 1
MUS 51A  Classical Piano I ............................................................. 1

Songwriting

MUS 28  Popular Songwriting ..................................................... 2

Technology Electives (3 Units):
Units

MUS 7  Music Synthesis, Sampling, and Electronic Music ............. 3
MUS 31A  Fundamental Recording Techniques I ......................... 1.5
MUS 31B  Fundamental Recording Techniques II ......................... 1.5
MUS 31LS  Recording Techniques III: Live Sound Production ........ 1.5
MUS 31SP  Recording Techniques IV: Studio Production ............... 1.5
MUS 37B  Music and Computers I: Electronic Music Composition 1.5
MUS 57NS  Music and Computers II: Music Notation and Scoring 1.5

A.S. General Education Requirements 21 Units

Core Courses (20 Units)
Units

MUS 7  Music Synthesis, Sampling, and Electronic Music ............. 3
MUS 31A  Fundamental Recording Techniques I ......................... 1.5
MUS 31B  Fundamental Recording Techniques II ......................... 1.5
MUS 31LS  Recording Techniques III: Live Sound Production ........ 1.5
MUS 31SP  Recording Techniques IV: Studio Production ............... 1.5
MUS 37B  Music and Computers I: Electronic Music Composition 1.5
MUS 57NS  Music and Computers II: Music Notation and Scoring 1.5
MUS 805  Special Studies in Music ................................................ 2
MUS 199C  Career Work Experience Education ............................ 3

Required MUS Courses (9 Units)

MUS 5  Beginning Jazz/Pop Music Theory ..................................... 3
MUS 6  Fundamentals of Music ..................................................... 3
MUS 51A  Jazz Appreciation .......................................................... 3
MUS 12  World Music ................................................................. 3
MUS 13A  Survey of American Popular Music ............................... 3
MUS 28  Popular Songwriting ..................................................... 2
MUS 51A  Class Piano I ................................................................. 1

Performance Electives (2 Units)

MUS 18CB  Intermediate Concert Band ........................................ 1
MUS 20  Intermediate Orchestra ................................................... 1
MUS 36  Chorale ....................................................................... 1
MUS 38  Jazz Singers ................................................................... 1

Electives

(in Music or other areas numbered 1-99) ........................................ 10

Total Units 60

Music Technology & 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, 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 ............. 3
MUS 31A  Fundamental Recording Techniques I ......................... 1.5
MUS 31B  Fundamental Recording Techniques II ......................... 1.5
MUS 31LS  Recording Techniques III: Live Sound Production ........ 1.5
MUS 31SP  Recording Techniques IV: Studio Production ............... 1.5
MUS 37B  Music and Computers I: Electronic Music Composition 1.5
MUS 57NS  Music and Computers II: Music Notation and Scoring 1.5
MUS 805  Special Studies in Music ................................................ 2
MUS 199C  Career Work Experience Education ............................ 3

Required MUS Courses (9 Units)

MUS 5  Beginning Jazz/Pop Music Theory ..................................... 3
MUS 6  Fundamentals of Music ..................................................... 3
MUS 51A  Jazz Appreciation .......................................................... 3
MUS 12  World Music ................................................................. 3
MUS 13A  Survey of American Popular Music ............................... 3
MUS 28  Popular Songwriting ..................................................... 2
MUS 51A  Class Piano I ................................................................. 1

Performance Electives (2 Units)

MUS 18CB  Intermediate Concert Band ........................................ 1
MUS 20  Intermediate Orchestra ................................................... 1
MUS 36  Chorale ....................................................................... 1
MUS 38  Jazz Singers ................................................................... 1

Electives

(in Music or other areas numbered 1-99) ........................................ 10

Total Units 60

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.

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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 ............. 3
MUS 31A  Fundamental Recording Techniques I ......................... 1.5
MUS 31B  Fundamental Recording Techniques II ......................... 1.5
MUS 31LS  Recording Techniques III: Live Sound Production ........ 1.5
MUS 31SP  Recording Techniques IV: Studio Production ............... 1.5
MUS 37B  Music and Computers I: Electronic Music Composition 1.5
MUS 57NS  Music and Computers II: Music Notation and Scoring 1.5
MUS 805  Special Studies in Music ................................................ 2
MUS 199C  Career Work Experience Education ............................ 3

Required MUS Courses (9 Units)

MUS 5  Beginning Jazz/Pop Music Theory ..................................... 3
MUS 6  Fundamentals of Music ..................................................... 3
MUS 51A  Jazz Appreciation .......................................................... 3
MUS 12  World Music ................................................................. 3
MUS 13A  Survey of American Popular Music ............................... 3
MUS 28  Popular Songwriting ..................................................... 2
MUS 51A  Class Piano I ................................................................. 1

Performance Electives (2 Units)

MUS 18CB  Intermediate Concert Band ........................................ 1
MUS 20  Intermediate Orchestra ................................................... 1
MUS 36  Chorale ....................................................................... 1
MUS 38  Jazz Singers ................................................................... 1

Electives

(in Music or other areas numbered 1-99) ........................................ 10

Total Units 60

Music Technology & Recording Arts Certificate of Achievement

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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.
### 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 Courses**

<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>Creative Careers - 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 MUS 10</td>
<td>Music Appreciation</td>
</tr>
<tr>
<td>or MUS 11A</td>
<td>Jazz Appreciation</td>
</tr>
<tr>
<td>or MUS 11A</td>
<td>Latin American Music Appreciation</td>
</tr>
<tr>
<td>or MUS 12</td>
<td>World Music</td>
</tr>
<tr>
<td>or MUS 24A</td>
<td>Beginning Jazz Improvisation</td>
</tr>
<tr>
<td>or MUS 24B</td>
<td>Intermediate Jazz Improvisation</td>
</tr>
<tr>
<td>or MUS 24C</td>
<td>Advanced Jazz Improvisation</td>
</tr>
<tr>
<td>or MUS 51A</td>
<td>Class Piano I</td>
</tr>
</tbody>
</table>

**Take 4 Units from a Performance Ensemble**

**Total Units**

17

### Jazz/Pop 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.

**Required Courses**

<table>
<thead>
<tr>
<th>Course</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>or MUS 11A</td>
<td>Jazz Appreciation</td>
</tr>
<tr>
<td>or MUS 24A</td>
<td>Beginning Jazz Improvisation</td>
</tr>
<tr>
<td>or MUS 24B</td>
<td>Intermediate Jazz Improvisation</td>
</tr>
<tr>
<td>or MUS 26A</td>
<td>Beginning Jazz/Rock Guitar Techniques</td>
</tr>
<tr>
<td>or MUS 26B</td>
<td>Advanced Jazz/rock Guitar Techniques</td>
</tr>
<tr>
<td>or MUS 27</td>
<td>Beginning Voice</td>
</tr>
<tr>
<td>or MUS 28A</td>
<td>Advanced Jazz/rock Guitar Techniques</td>
</tr>
<tr>
<td>or MUS 51A</td>
<td>Class Piano I</td>
</tr>
</tbody>
</table>

**Take 4 Units from a Performance Ensemble**

**Total Units**

15

### Latin American Music 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.

**Required Courses**

<table>
<thead>
<tr>
<th>Course</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>or MUS 11A</td>
<td>Latin American Music Appreciation</td>
</tr>
<tr>
<td>or MUS 24A</td>
<td>Beginning Jazz Improvisation</td>
</tr>
<tr>
<td>or MUS 27</td>
<td>Beginning Popular Guitar Techniques</td>
</tr>
<tr>
<td>or MUS 51A</td>
<td>Class Piano I</td>
</tr>
<tr>
<td>or MUS 52</td>
<td>Percussion Ensemble</td>
</tr>
<tr>
<td>or MUS 52A</td>
<td>Latin American Drums</td>
</tr>
</tbody>
</table>

**Take 4 Units from a Performance Ensemble**

**Total Units**

14

### 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, songwriting, and sound design.

**Required Courses**

<table>
<thead>
<tr>
<th>Course</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>or MUS 7</td>
<td>Music Synthesis, Sampling, and Electronic Music</td>
</tr>
<tr>
<td>or MUS 28</td>
<td>Popular Songwriting</td>
</tr>
<tr>
<td>or MUS 31B</td>
<td>Fundamental Recording Techniques I</td>
</tr>
<tr>
<td>or MUS 31S</td>
<td>Recording Techniques III: Live Sound Production</td>
</tr>
<tr>
<td>or MUS 51A</td>
<td>Music and Computers I: Digital Music Production</td>
</tr>
<tr>
<td>or MUS 57A</td>
<td>Music and Computers II: Electronic Music Composition</td>
</tr>
<tr>
<td>or MUS 57B</td>
<td>Music and Computers III: Music Notation and Scoring</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 Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>MUS 6</td>
<td>Fundamentals of Music</td>
<td>3</td>
</tr>
<tr>
<td>MUS 10</td>
<td>Music Appreciation</td>
<td>3</td>
</tr>
<tr>
<td>MUS 22A</td>
<td>Intermediate Piano</td>
<td>1</td>
</tr>
<tr>
<td>MUS 22B</td>
<td>Romantic and Contemporary Keyboard</td>
<td>1</td>
</tr>
<tr>
<td>MUS 23</td>
<td>Advanced Piano</td>
<td>1</td>
</tr>
<tr>
<td>MUS 51A</td>
<td>Class Piano I</td>
<td>1</td>
</tr>
<tr>
<td>MUS 51B</td>
<td>Class Piano II</td>
<td>1</td>
</tr>
<tr>
<td>MUS 51C</td>
<td>Class Piano III</td>
<td>1</td>
</tr>
<tr>
<td>MUS 51D</td>
<td>Class Piano IV</td>
<td>1</td>
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<tr>
<td>MUS 68</td>
<td>Piano Ensemble</td>
<td>1</td>
</tr>
<tr>
<td>MUS 68CP</td>
<td>The Collaborative Pianist</td>
<td>1</td>
</tr>
</tbody>
</table>

**Total Units**: 15

### Voice Skills Certificate

**Learning Outcomes**

1. Analyze and perform Classical vocal music, demonstrating technical and stylistic performance practice unique to each period of 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 or 1M</td>
</tr>
<tr>
<td>MUS 6</td>
<td>Fundamentals of Music</td>
<td>3</td>
</tr>
<tr>
<td>MUS 10</td>
<td>Music Appreciation</td>
<td>3</td>
</tr>
<tr>
<td>MUS 16</td>
<td>Applied Music: Winds, Strings, Brass, Piano, Voice, and Percussion</td>
<td>2</td>
</tr>
<tr>
<td>MUS 17A</td>
<td>Beginning Voice</td>
<td>1</td>
</tr>
<tr>
<td>MUS 17B</td>
<td>Intermediate Voice</td>
<td>1</td>
</tr>
<tr>
<td>MUS 17C</td>
<td>Advanced Voice</td>
<td>1</td>
</tr>
<tr>
<td>MUS 17LD</td>
<td>Lyric Dictation</td>
<td>1</td>
</tr>
<tr>
<td>MUS 51A</td>
<td>Class Piano I</td>
<td>1</td>
</tr>
</tbody>
</table>

**Take 4 Units from a Performance Ensemble**

**Total Units**: 17

### Music Courses

#### MUS 1: Comprehensive Music Theory I

- **Units**: 3 units; 3 hours Lecture, 1 hour Laboratory
- **Prerequisite**: 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). **Transfer Credit**: Transfers to CSU; UC. C-ID: MUS 125

#### MUS 2: Comprehensive Music Theory II

- **Units**: 3 units; 3 hours Lecture, 1 hour Laboratory
- **Prerequisite**: MUS 1 or equivalent skills.
- **Co-requisite**: MUS 2M.
- **Recommended Preparation**: MUS 5 or MUS 6.
- **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). **Transfer Credit**: Transfers to CSU; UC. C-ID: MUS 130

#### MUS 3: Comprehensive Music Theory III

- **Units**: 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). **Transfer Credit**: Transfers to CSU; UC. C-ID: MUS 140

#### MUS 4: Comprehensive Music Theory IV

- **Units**: 3 units; 3 hours Lecture, 1 hour Laboratory
- **Prerequisite**: MUS 2M or equivalent skills.
- **Co-requisite**: MUS 3.
- **Repeatability**: May be taken a total of 1 time.
- Integrates aural skills from MUS 2M including sevenths, modulation, non-scale tones, harmonic dictation from Roman numerals and soggetto continuo. 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). **Transfer Credit**: Transfers to CSU; UC. C-ID: MUS 145

#### MUS 5: Beginning Jazz/Pop Music Theory

- **Units**: 3 units; 3 hours Lecture, 1 hour Laboratory
- **Prerequisite**: MUS 2 or equivalent skills.
- **Co-requisite**: MUS 3.
- **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). **Transfer Credit**: Transfers to CSU; UC. C-ID: MUS 135

#### MUS 6: Fundamentals of Music

- **Units**: 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). **Transfer Credit**: Transfers to CSU; UC. C-ID: MUS 110

#### MUS 7: Music Synthesis, Sampling, and Electronic Music

- **Units**: 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.
- **Transfer Credit**: Transfers to CSU; UC. C-ID: MUS 110

#### MUS 9A: Advanced Jazz Theory/Beginning Jazz Arranging

- **Units**: 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). **Transfer Credit**: Transfers to CSU; UC. C-ID: MUS 150

#### MUS 9B: Advanced Piano

- **Units**: 3 units; 3 hours Lecture, 1 hour Laboratory
- **Prerequisite**: MUS 2M or equivalent skills.
- **Co-requisite**: MUS 3.
- **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). **Transfer Credit**: Transfers to CSU; UC. C-ID: MUS 155
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 unique 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 15D Jazz/Pop Solo Voice Performance
1 unit; 0.5 hour Lecture, 2.5 hours Laboratory
Prerequisite: MUS 15C or equivalent skills.
Repeatability: May be taken a total of 1 time.
Performance of songs learned in MUS 15C. 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.

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 practices. 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.
Examines the fundamentals of 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 musicianship 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 18D Piano, Voice, and Percussion
1 unit; 0.5 hour Lecture, 2.5 hours Laboratory
Recommended Preparation: MUS 18A or equivalent experience.
Repeatability: May be taken a total of 1 time.
Provides group instruction on piano, voice, and percussion. 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 18E Advanced 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.
Provides advanced instruction on flute, oboe, bassoon, clarinet, saxophone, trumpet, French horn, trombone, baritone, and tuba along with the standard drums and percussion instruments. Additional advanced 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 18F Advanced 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.
Provides advanced group instruction on flute, oboe, bassoon, clarinet, saxophone, trumpet, French horn, trombone, baritone, and tuba along with the standard drums and percussion instruments. Advanced repertoire. Special projects and public performances 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.
MUS 18J 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.
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 intermediate proficiency. Public performance is required for credit. Materials fee may apply.
Transfer Credit: Transfers to CSU, UC; C-ID: MUS 180

MUS 19A Intermediate 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 19B Intermediate Strings II
1 unit; 4 hours Laboratory
Recommended Preparation: MUS 19A 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: MUS 19A or equivalent skills.
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 the intermediate pianist. 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 Virgilianists 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 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 24A 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, 1.5 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
Prerequisite: MUS 26A or equivalent skills.
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.
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 techniques, extended harmony chord substitution, improvisation techniques, and chord solo playing. Students should have experience equivalent to a jazz/rock guitar course. See the Schedule of Classes for 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. Students 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 details about this course offering. Materials fee may apply.
Transfer Credit: Transfers to CSU, UC.

MUS 28 Popular Songwriting
2 units; 1 hour Laboratory, 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 lyric/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, UC.

MUS 31A Fundamental Recording Techniques I
1.5 units; 1.5 hours 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, UC.
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 production capabilities of combining computer technology with traditional recording techniques. Materials fee may apply. May be offered in a Distance-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 setup, 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 techniques, 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 projects. 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 equivalent skills.
Repeatability: May be taken a total of 1 time.
Introduces basic classical guitar technique and repertoire for the student with little or no experience, including music reading and right and left hand techniques. Students will learn simple pieces in the classical style. Students should provide their own guitars. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering. Materials 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.
Rehearses, records, and performs contemporary big band jazz for advanced brass, wood, 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. Materials 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, wood, and rhythm section players. Must be able to read music at sight and play an instrument. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for 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 performance.
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 the 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 independent hands in classical and popular styles. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course offering. 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 offering. 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 Schedule 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, arpeggios, basic chord progressions, sight reading techniques, and playing music arranged for two hands together. Some of the class hours for this course may be scheduled as To Be Arranged (TBA). See the Schedule of Classes for the details about this course 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 instruments 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 52A Latin American Drumming
1 unit; 3 hours Laboratory
Repeatability: May be taken a total of 1 time. Develops hand drumming technique and rhythmic comprehension through the exploration of African-influenced Latin American rhythms. Studies rhythms from Cuba and other Caribbean cultures, Brazil, Colombia, Venezuela, and Peru. 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 sequencing, digital audio, mixing, editing, and software. Materials fee may apply. 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 57B Music and Computers II: Electronic Music Composition
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 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 58  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 57NS Music and Computers III: Music Notation and Scoring
1.5 units; 1.5 hours Lecture, 1 hour Laboratory
Prerequisite: By Audition. 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; 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. Materials fee may apply. 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. 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 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 duets with other instruments and voice, and in the accomplishment 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; 1 – 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-2  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 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 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; 4 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
Recommended Preparation: MUS 24C or equivalent skills.
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.
Math Competency Requirement

The A.S. Degree Mathematics Requirement may be met by success-
ful completion of Intermediate Algebra or equivalent or a higher level mathematics course with a grade of “C” or better. Successful comple-
tion must be verified by an official college transcript or by an appropri-
ate 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 pro-
gram graduation requirements. Courses taken at other regionally ac-
ccredited colleges may be used when approved by a Cabrillo counselor.

Health Screening and Clinical Compliance Requirements

To comply with state and local regulations for health care provid-
ers, 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 re-
quirements, and provide documentation thereof before entering and
during the program.

Students are also required to complete fingerprinting, criminal back-
ground 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 ad-
vanced 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 Nurs-
ing Education Department Office for details.

Thirty-Unit Option

Any student with a current LVN license may apply for the 30-unit op-
ton 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 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 workshops available in
the Counseling Department or on the Transfer and Articulation web-
site at www.cabrillo.edu.)

Completing a U.S. History or U.S. Political Science course and a Hu-
manities course, in addition to the above Prerequisites and Gradua-
tion 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 spe-
cific graduation requirements.

<table>
<thead>
<tr>
<th>Additional Graduation Requirements</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 1</td>
<td>Public Speaking</td>
</tr>
<tr>
<td>or</td>
<td>Honors Public Speaking</td>
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<tr>
<td>COMM 1H</td>
<td>Group Discussion</td>
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<tr>
<td>or</td>
<td>General Psychology</td>
</tr>
<tr>
<td>PSYC 1H</td>
<td>Honors General Psychology</td>
</tr>
<tr>
<td>or</td>
<td>Contemporary Social Problems</td>
</tr>
<tr>
<td>SOC 2</td>
<td>Honors Contemporary Social Problems</td>
</tr>
<tr>
<td>or</td>
<td>Introduction to Anthropology/Cultural</td>
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</tbody>
</table>

**Please note that the above courses may also be used to satisfy appropriate general education areas.

Core Courses (40 Units)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>N 12</td>
<td>Maternal Health and Nursing Fundamentals I...</td>
<td>8</td>
</tr>
<tr>
<td>N 22</td>
<td>Pediatric and Medical-Surgical Nursing II...</td>
<td>9</td>
</tr>
<tr>
<td>N 32</td>
<td>Geriatric and Medical-Surgical Nursing III...</td>
<td>10</td>
</tr>
<tr>
<td>N 42</td>
<td>Psychiatric and Nursing Care Management IV...</td>
<td>6</td>
</tr>
<tr>
<td>N 16</td>
<td>Basic Nursing Skills and Medications</td>
<td>1.5</td>
</tr>
<tr>
<td>N 26</td>
<td>Advanced Nursing Skills and Medications</td>
<td>1.5</td>
</tr>
<tr>
<td>N 17</td>
<td>Pharmacology A</td>
<td>0.5</td>
</tr>
<tr>
<td>N 27</td>
<td>Pharmacology B</td>
<td>0.5</td>
</tr>
<tr>
<td>N 37</td>
<td>Pharmacology C</td>
<td>0.5</td>
</tr>
<tr>
<td>N 47</td>
<td>Pharmacology D</td>
<td>0.5</td>
</tr>
<tr>
<td>N 48</td>
<td>Clinical Nursing Preceptorship</td>
<td>2</td>
</tr>
</tbody>
</table>

**Nursing Electives: not required for Nursing Degree

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ALH 110</td>
<td>A Review of Anatomy and Physiology</td>
<td>2</td>
</tr>
<tr>
<td>N 109A</td>
<td>Nursing Skills Practice Lab I.</td>
<td>1.2</td>
</tr>
<tr>
<td>N 109B</td>
<td>Nursing Skills Practice Lab II.</td>
<td>1.2</td>
</tr>
<tr>
<td>N 109C</td>
<td>Nursing Skills Practice Lab III.</td>
<td>1.3</td>
</tr>
<tr>
<td>N 109D</td>
<td>Nursing Skills Practice Lab IV.</td>
<td>1.3</td>
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</table>

**Total Units: 60

Nursing Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>N 12</td>
<td>Maternal Health and Nursing Fundamentals I...</td>
<td>8</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td>4 hours Lecture, 12 hours Laboratory</td>
</tr>
<tr>
<td>Prerequisite: Acceptance to the Cabrillo Nursing Program.</td>
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<tr>
<td>Co-requisite: N 15 or equivalent.</td>
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<tr>
<td>Hybrid Requirement: Completion or concurrent enrollment in N 17 or equivalent.</td>
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<td></td>
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<tr>
<td>Repeatability: May be taken a total of 1 time.</td>
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</tbody>
</table>

**Introduces the Neuman Systems Model and the nursing process to es-
tablish 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 |
| or          | 1.5 units; 1 hour Lecture, 2 hours Laboratory |
| Prerequisite: Acceptance to the Cabrillo Nursing Program. |
| Co-requisite: N 12 and N 15. |
| Hybrid Requirement: Completion 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 |
| or          | 0.5 hours Lecture |
| Prerequisite: Acceptance to the Cabrillo Nursing Program. |
| Co-requisite: N 12 and N 15 and N 16. |
| 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 |
| or          | 9 units; 5 hours Lecture, 12 hours Laboratory |
| Prerequisite: N 12 or N 14 and N 15, N 16 and N 17. |
| Hybrid Requirement: Completion of 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 pa-
tients with selected health issues. May be offered in a Distance-Learning Format. |

Transfer Credit: Transfers to CSU.

N 26        | Advanced Nursing Skills and Meditations Labora-tory II | 1.5 |
| or          | 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 Requirement: Completion of 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 |
| or          | 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 pa-
tient care. May be offered in a Distance-Learning Format. |

Transfer Credit: Transfers to CSU.

N 32        | Geriatric and Medical-Surgical Nursing III... | 10 |
| or          | 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 nursing Systems Model and the nursing process and en-
tends the knowledge base needed to provide moderately complex nurs-
ing 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 |
| or          | 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 pa-
tient care. May be offered in a Distance-Learning Format. |

Transfer Credit: Transfers to CSU.

N 42        | Psychiatric and Nursing Care Management IV | 6 |
| or          | 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 pa-
tients 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 com-
prehensive 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 |
| or          | 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 Speci-
 alist.
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 Speci-
alist.
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 Alonso, 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-
f ered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU, UC.

PHILOSOPHY
Associate Degree for Transfer
A Degree with a Guarantee.

Philosophy A.A.-T Transfer Degree
In ancient Greek, the word “philosophy” literally means, “love of wis-
dom.” Philosophy is concerned with our most fundamental assum-
tions 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, philosop-
ophers are actively engaged in asking questions which include issues
regarding the rights of animals, the possibility of artificial conscious-
ness, intellectual property rights, just and equitable treatment of re-
sources, 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 en-
quiry, a rigorous examination of evidence, and thoughtful self-reflec-
tion regarding one’s presuppositions, beliefs, and actions.
The Associate Degrees in Philosophy are designed to prepare stu-
dents for upper division work in the major. A student with an interest
in philosophy would ordinarily transfer to a four-year college or univer-
sity in order to obtain a Bachelor’s Degree. Students who subsequently
wish to return to 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
looking to 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 struc-
ture, and decision making that enable them to succeed in such profes-
sions 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 in 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 guaranteed 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 cam-
pus 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 Edu-
cation- 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
Systems and Civics, and Artistic Variety
4. Personal Responsibility and Professional Development: Self-
Management and Self-Awareness, Social and Physical Wellness,
Workplace Skills

CSU or IGETC for CSU General Education Requirements 37-39 Units
Core (6 units)
PHILO 12  Symbolic Logic ..................................................3
or
PHILO 4  Introduction to Philosophy .............................................3
or
PHILO 10  Ethics .....................................................................3
or
PHILO 10H  Honors Ethics ....................................................3
List A-Select 3 units from: Units
Any course not used in Core above ..............................................3
or
PHILO 6  History of Philosophy: Ancient and Medieval ..........3
or
PHILO 7  History of Philosophy: Modern .................................3
or
PHILO 9  Philosophy of Mind ...........................................................3
List B-Select 6 units from: Units
Any course(s) not used from List A above ............................3
or
HIST 4A  Survey of Western Civilization to 1648 ..........3
or
HIST 4AH  Survey of Western Civilization to 1648 ...............3
HIST 4B  Survey of Western Civilization to 20th Century ..........3
or
HIST 4BH  Survey of Western Civilization to 20th Century .........3
or
PHILO 8  Philosophy of Religion .............................................3
or
PHILO 14  Non-Western Philosophical Traditions ................3
or
PHILO 16  Contemporary Moral Issues .................................3
Philosophy

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 sources. 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 inequality 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 philosophical 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 Zela. Transfer Credit: Transfers to CSU; UC.

PHILO 18  Beauitly Beastly: 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 Prac- 
tical and Professional Ethics (APPE) Regional and, if qualifying, National 
Ethics Bowl Academic Competitions. This exciting and engaging chal- 
gen presents students to evaluate contemporary case studies provided 
by APPE, identify the moral dimensions of each case, and to formulate 
responses, while anticipating possible questions and objections pre-

tened during the competition rounds by opposing teams and judges. 
Critical, analytical, and oral work is the main 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 com-
pleted 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 in MATH 5B
Repeatability: May be taken a total of 1 time.
Studies a particular philosophical concept, issue, movement, or philos-
ophy. Course content will vary with each offering. Critical, analytical, 
written work is the primary means of evaluating student performance 
within this course.
Transfer Credit: Transfers to CSU, UC, with conditions: Students must 
retain a copy of the course outline, the course syllabus and work com-
pleted 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.
Principles for analyzing arguments used in political rhetoric, advertise-
ments, editorials, scientific claims and social commentary. Presents 
various techniques for analyzing arguments used in political rhetoric,

Learning Outcomes
1. Communication: Reading, writing, listening, speaking, and/or 

Conversing
2. Critical Thinking and Information Competency: Analysis, 
Computation, Research, Problem Solving
3. Global Awareness: An appreciation of scientific processes, 
Global Systems, and Artistic Variety
4. Personal Responsibility and Professional Development: Self-

Management and Self-Awareness, Social and Physical Wellness, 
Workplace Skills

IGETC (for CSU) General Education Requirements

Core Courses Units
PHYS 4A Physical Science and Engineers I .........................5
PHYS 4B Physics for Scientists and Engineers II .................5
PHYS 4C **Physics for Scientists and Engineers III .............5
MATH 5A Analytic Geometry and Calculus I ....................5
MATH 5B Analytic Geometry and Calculus II ....................5
MATH 5C Analytic Geometry and Calculus III ..................5
PHYS 2A Physics for Scientists and Engineers I ..................5
PHYS 2B Physics for Scientists and Engineers II ..................5
PHYS 4D Modern Physics for Scientists and Engineers III .......5

Total Units 30
"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
3. Global Awareness: An appreciation of scientific processes, 
Global Systems, and Artistic Variety
4. Personal Responsibility and Professional Development: Self-

Management and Self-Awareness, Social and Physical Wellness, 
Workplace Skills

Model Program for Physics
This Associate Degree requires 60 units appropriate to your edu-
cational 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.satisf.org for 4-year public 
institutions. Please see a counselor for advisement to ensure 
you are taking the best possible courses given your goals. This de-
gree may be completed as a Transferable Associate in Science degree 
with the addition of university admission requirements and increased 
general education requirements.

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cational goal, to include general education and at least 30 units in a 
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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 

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2. Critical Thinking and Information Competency: Analysis, 
Computation, Research, Problem Solving
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"Fall only," "Spring only
Physics A. S. Degree
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"Fall only," "Spring only
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institutions. Please see a counselor for advisement to ensure 
you are taking the best possible courses given your goals. This de-
gree may be completed as a Transferable Associate in Science degree 
with the addition of university admission requirements and increased 
general education requirements.
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.

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. (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 4C Physics for Scientists and Engineers III
4 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 heat, 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. 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-12 units. Deduct credit for duplication of topics. C-ID: PHYS 215, PHYS 4A + PHYS 4B + PHYS 4C = C-ID.
PHYS 200S
Prerequisite: MATH 5C.
3 units; 3 hours Lecture
Prerequisite: PHYS 10 or concurrent enrollment.
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.

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.

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. (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 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, every year.
Transfer Credit: Transfers to CSU; UC.
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 Converging
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

<table>
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<th>Units</th>
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Core Courses (12 units)

| PS 1 | Introduction to Government | 3 |
| or | PS 1H | Honors Introduction to Government | 3 |
| or | PS 2 | Comparative Government | 3 |
| or | PS 3 | International Relations | 3 |
| or | PS 5 | American Political Thought | 3 |

Approved Electives (6-9 Units)

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| ECON 1A | Introduction to Macroeconomics | 3 |
| or | ECON 1B | Introduction to Microeconomics | 3 |
| or | HIST 2A | World History to 1500 | 3 |
| or | HIST 2B | World History: 1500 to Present | 3 |
| or | HIST 4A | Survey of Western Civilization to 1648 | 3 |
| or | HIST 4AH | Survey of Western Civilization to 1648 | 3 |
| or | HIST 4BH | Survey of Western Civilization to 1648 | 3 |
| or | HIST 16C | History of Mexico | 3 |
| or | HIST 19B | Introduction to Chinese History | 3 |
| or | HIST 19C | Introduction to Japanese History | 3 |

 Electives: Any Course numbered 1-99

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<td>9-12</td>
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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. |
| Trace 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. Controversial issues will be presented from a variety of viewpoints. (Satisfies the state requirement for American institutions and California government.) |

| PS 3 | Comparative Government | 1-3 units; 1-3 hours Lecture |
| Repeatability: May be taken a total of 1 time. |
| Trace 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. Controversial issues will be presented from a variety of viewpoints. (Satisfies the state requirement for American institutions and California government.) |

| PS 5 | American Political Thought | 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. Controversial issues will be presented from a variety of viewpoints. (Satisfies the state requirement for American institutions and California government.) |

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/1AMCH/1A1CH.

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. Controversial 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 2 Comparative Government | 3 units; 3 hours Lecture |
| Repeatability: May be taken a total of 1 time. |
| Students will study 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.

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 requirement 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
### General Education Requirements 37-39 Units

**Core Courses (10-12 units)**
- Take one course from: General Psychology, Statistics, and Research Methods

**List A - Take Human Anatomy or Biology of People with Lab, General Biology or Intro. to Biological Psychology**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<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>MATH 12</td>
<td>Elementary Statistics</td>
<td>5</td>
</tr>
<tr>
<td>MATH 12H</td>
<td>Honors Elementary Statistics</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 2A</td>
<td>Statistics for Behavioral Sciences</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 2B</td>
<td>Research Methods for Behavioral Sciences</td>
<td>3</td>
</tr>
</tbody>
</table>

**List B - Select one course from the following:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 1H</td>
<td>Honors Introduction to Human Anatomy</td>
<td>3</td>
</tr>
<tr>
<td>BIO 13A</td>
<td>Human Anatomy</td>
<td>4</td>
</tr>
<tr>
<td>BIO 13AL</td>
<td>Human Anatomy Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>BIO 11A</td>
<td>General Biology</td>
<td>4</td>
</tr>
<tr>
<td>PSYCH 4</td>
<td>Introduction to Biological Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

**Electives:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC 1H</td>
<td>Honors Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>PSYCH 2</td>
<td>Research Methods in Psychology</td>
</tr>
<tr>
<td>or</td>
<td>PSYCH 3</td>
<td>Introduction to Abnormal Psychology</td>
</tr>
<tr>
<td>or</td>
<td>PSYCH 3AB</td>
<td>Psychological Assessment</td>
</tr>
<tr>
<td>or</td>
<td>PSYCH 3ABC</td>
<td>Social Psychology</td>
</tr>
<tr>
<td>or</td>
<td>PSYCH 3A</td>
<td>Personality and Social Psychology</td>
</tr>
</tbody>
</table>

**Psychology A. A. Degree**

**Learning Outcomes**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYCH 6</td>
<td>Introduction to Social Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 12</td>
<td>Introduction to Cognitive Psychology</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>3</td>
</tr>
</tbody>
</table>

**Model Program for Psychology**

- An Associate Degree requires 60 units appropriate to your education 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.cccco.org or the city's public institutions. Please see a counselor for advisement to ensure you are taking the best possible courses given your goals.

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

### A. A. General Education 30 Units

**Core Courses (15-18 Units)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<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>PSYCH 2A</td>
<td>Statistics for Behavioral Sciences</td>
<td>3</td>
</tr>
<tr>
<td>MATH 12</td>
<td>Elementary Statistics</td>
<td>5</td>
</tr>
<tr>
<td>or</td>
<td>MATH 12H</td>
<td>Honors Elementary Statistics</td>
</tr>
</tbody>
</table>

**Choose three of the following courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYCH 2B</td>
<td>Research Methods in Psychology</td>
<td>4</td>
</tr>
<tr>
<td>PSYCH 4</td>
<td>Introduction to Biological Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 4H</td>
<td>Honors Introduction to Biological Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 6</td>
<td>Introduction to Social Psychology</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>PSYCH 6H</td>
<td>Honors Introduction to Social Psychology</td>
</tr>
<tr>
<td>PSYCH 8</td>
<td>Introduction to Developmental Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 12</td>
<td>Introduction to Cognitive Psychology</td>
<td>3</td>
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</tbody>
</table>

**Approved Electives (9 Units)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYCH 31</td>
<td>Introduction to Abnormal Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 33</td>
<td>Personal and Social Adjustment</td>
<td>3</td>
</tr>
<tr>
<td>PSYCH 33AB</td>
<td>Psychological Assessment</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>PSYCH 3ABC</td>
<td>Social Psychology</td>
</tr>
</tbody>
</table>
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 behaviors, 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.
Describes and explains individual differences in terms of major personality research and assessment.
Transfer Credit: Transfers to CSU, UC. C-ID: PSY 120

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.
The course reviews major findings of cognitive psychology, and includes the study of factors such as culture, gender, ethnic background, 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.
Studies the way in which individual experience and culture influence grief, care of the dying, funeral rites, ethical decision-making in medicine, and the psychosocial understanding of death through contemporary, historical, cross-cultural, psychological, and interdisciplinary perspectives.
Transfer Credit: Transfers to CSU, UC, with conditions: CSU. Students must take PSYCH 35ABC (3 units) to receive GE credit UC. If taken for 3 units(A/B/C).

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 in simple 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 PSYCH 39ABC (3 units) to receive GE credit UC. If taken for 3 units(A/B/C). C-ID: SOCI 130

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, schizophrenia, 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: age, race, ethnicity, history, and cultural background.
Transfer Credit: Transfers to CSU, UC. C-ID: PSY 115

PUBLIC SAFETY
Human Arts and Social Sciences Division
Paul Harrell, Division Dean
Division Office, Room 620
Logan Goettsch Fire Technology Department Chair,
(831) 786-4802
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Watsonville Counseling: (831) 786-4734
Call (831) 479-6297 for more information
http://www.cabrillo.edu/programs

Public Safety

PUBLIC SAFETY CATEGORIZATION

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, Correctional Officer, Bailiff, 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:
7. Evaluate the ethical and legal issues encountered by professionals in the Criminal Justice System.
6. Discuss criminal procedures from the point of arrest to release and the options available in the process.
5. Demonstrate a working knowledge of the rules of evidence, the various kinds of evidence, and the admissibility of evidence.
4. Explain principles of the US Constitution and integrate constitutional provisions with the fundamentals of law.
3. Apply principles of the US Constitution and integrate constitutional provisions with the fundamentals of law.
2. Analyze and explain the historical development of the American Criminal Justice System and its components including law enforcement, courts, and corrections.
1. Explain the historical development and philosophy of criminal 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 in the Criminal Justice System.

PSYCH 1H Honors General Psychology ........................................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 ..........................................................3

CJ 9 Juvenile Procedures ............................................................3

CJ 10 Forensic Investigation ..........................................................3

List B - Select 2 courses from the following: (6-10 units) Units
Any course listed above

or

BUS 5 Business Information Systems ........................................3

COMM 1 Public Speaking ...........................................................3

COMM 1H Public Speaking ........................................................3

CS 1 Introduction to Computers and Computer Technology .......3

and

CS 1L Technology Tools ............................................................2

MATH 2 Precalculus Algebra .....................................................3

MATH 3 Precalculus Trigonometry .............................................3

MATH 4 Precalculus Algebra and Trigonometry .....................5

MATH 5A Analytic Geometry and Calculus I ..........................5

MATH 5B Analytic Geometry and Calculus II ............................5

MATH 10 Survey of College Mathematics ..............................3

MATH 13 Finite Mathematics ....................................................3

PHIL 12 Symbolic Logic ............................................................3

PSYCH 1H Honors General Psychology ........................................3

or

PSYCH 2A Honors General Psychology .......................................3

or

PSYCH 1H Honors General Psychology ........................................3

or

Public Safety
Public Safety: Fire Technology A. Degree

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

Electives (6 Units)
(Total Units: 9)

Approved Electives (6 Units)
(Total Units: 9)

Total Units: 60

These courses are not transferable to four-year universities.
CJ 1  Introduction to Criminal Justice
3 units; 3 hours Lecture
Repeatable: May be taken a total of 1 time.
Examines 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
Repeatable: 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 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. UC: C-ID: AJ 120

CJ 3  Criminal Evidence
3 units; 3 hours Lecture
Repeatable: 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 4  Criminal Courts and Procedures
3 units; 3 hours Lecture
Repeatable: 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
Repeatable: 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
Repeatable: 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 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. C-ID: AJ 150

CJ 7  Criminal Justice Written Communications
3 units; 3 hours Lecture
Repeatable: May be taken a total of 1 time.
Develops students' abilities in note taking, researching, writing, and organizing. Includes field trips to correctional institutions and guest speakers. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU. C-ID: AJ 220

CJ 8  Criminal Justice Written Communications
3 units; 3 hours Lecture
Repeatable: 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 200

CJ 9  Juvenile Procedures
3 units; 3 hours Lecture
Repeatable: May be taken a total of 1 time.
Examines the essential 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 220

CJ 10  Forensic Investigation
4 units; 4 hours Lecture
Repeatable: May be taken a total of 1 time.
Examines the method 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 11  Contemporary Issues in the Justice System
3 units; 3 hours Lecture
Repeatable: 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 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 12  Criminal Identification
3 units; 3 hours Lecture
Repeatable: May be taken a total of 1 time.
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.

CJ 13  Introduction to Corrections
3 units; 3 hours Lecture
Repeatable: May be taken a total of 1 time.
Prerequisite: POST approved pre-entry English skills and physical abilities assessment examinations provided by the Academy, Penal Code section 3511.5 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: homework assignments and equipment maintenance. (882-1098 hrs)
Transfer Credit: Non-transferable.
CJ 108 Explorer Academy
1.5 units; 53 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, takedowns, 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.
May be taken a total of 1 time.
Provides students with the proper techniques for safe and secure training for instructors.
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.
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 for instructors.
Transfer Credit: Non-transferable.

CJ 135 Dual Sport Motorcycle Training
5 units; 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.
Provides students with the proper techniques for safe and secure control, 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 155D Law Enforcement Skills and Knowledge Modules
0.5 – 15 units; 0.15 – 45 hours Laboratory
Prerequisite: Successful completion of a California POST Certified 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.
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 for instructors.
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 – 15 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.
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.

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 Organization 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, facilties, 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 fire-fighter 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.
Introduces the basic principles and history related to the national fire-fighter 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 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 10 Fire Company Officer 2A
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 that students who have completed the equivalent training as determined by the Dean of Academy Instruction will be granted 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 minimum knowledge and skill levels are regarding: Firefighter safety Pertinent Vehilce, 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

FT 11 Fire Company Officer 2B
0.5 unit, 0.73 hours Lecture, 0.5 units 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 students who have completed the equivalent training as determined by the Dean of Academy Instruction will be granted 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 minimum knowledge and skill levels are regarding: Firefighter safety Pertinent Vehilce, 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

FT 12 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 that students who have completed the equivalent training as determined by the Dean of Academy Instruction will be granted 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 minimum knowledge and skill levels are regarding: Firefighter safety Pertinent Vehilce, 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

FT 13 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 that students who have completed the equivalent training as determined by the Dean of Academy Instruction will be granted 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 minimum knowledge and skill levels are regarding: Firefighter safety Pertinent Vehilce, 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

Fire Technology Courses

FT 131 Fire Company Officer 2A
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 that students who have completed the equivalent training as determined by the Dean of Academy Instruction will be granted 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 minimum knowledge and skill levels are regarding: Firefighter safety Pertinent Vehilce, 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

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 that students who have completed the equivalent training as determined by the Dean of Academy Instruction will be granted 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 minimum knowledge and skill levels are regarding: Firefighter safety Pertinent Vehilce, 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

FT 130 Fire Company Officer 2B
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 that students who have completed the equivalent training as determined by the Dean of Academy Instruction will be granted 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 minimum knowledge and skill levels are regarding: Firefighter safety Pertinent Vehilce, 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

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FT 134 Fire Company Officer 2E
1 unit; 0.94 hours Laboratory, 1.28 hours Laboratory
Prerequisite: 1. State Fire Marshall certified basic firefighting academic 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 Fire Officer Certification Process Familiarity with Fire inspection procedures Familiarity with Fire Behavior Familiarity with Verbal and written communication Competent & effective communication Familiarity with Fire Fighter Job duties. 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 hours Lecture, 1.45 hours Laboratory
Prerequisite: 1. State Fire Marshall certified basic firefighting academic 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 Fire Officer Certification Process Familiarity with Fire inspection procedures Familiarity with Fire Behavior Familiarity with Verbal and written communication Competent & effective 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 136 Fire Instructor II
1 unit; 0.9 hour Lecture, 1.28 hours Laboratory
Prerequisite: 1. State Fire Marshall certified basic firefighting academic 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 Fire Officer Certification Process Familiarity with Fire inspection procedures Familiarity with Fire Behavior Familiarity with Verbal and written communication Competent & effective 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 – 1 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 (Basic Fire Academy) 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 of 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 Instruc-
tor 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 180 or Firefighter 1 or equivalent.
Repeatability: May be taken a total of 1 time.
Meets NWCG certified course requirements for current and prospec-
tive 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 hours Laboratory
Prerequisite: 1. State Fire Marshall certified basic firefighting academy
diploma or equivalent as determined by the Dean of Academy Instruc-
tion. 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 be-
fore working on an emergency incident. The subjects are intended to
give the Firefighter 1 a basic knowledge which is needed prior to emer-
gency 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 mate-
rials 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 177 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; focus-
ing on ventilation with a barrier device, a bag mask device, use of an
automated external defibrillator (AED).
Transfer Credit: Non-transferable.

FT 178 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 responsibil-
ity information about Incident Command System (ICS) for personnel
working in a support role at an incident or event.
Transfer Credit: Non-transferable.

FT 180 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 181 Advanced Incident Command System 400
1.5 units; 1.5 hours Lecture
Repeatability: May be taken a total of 1 time.
Introduces large-scale organizational development, rules and relation-
ships of primary staff, and the planning, operational, and fiscal con-
considerations related to complex incident and event management.
In-
tended 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.
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 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 certifi-
cate 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 re-
newal 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 cer-
tified 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 per-
form, 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. Curricu-
lim 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 I Academy Skills
5 – 1 unit; 5.5 – 3 hours Laboratory
Prerequisite: State Fire Marshal certified basic firefighting academy di-
ploma or equivalent as determined by the Dean of Academy Instruc-
tion. NOTE: Approval of equivalent training is not a guarantee that
state regulatory or licensing agencies will also grant equivalency.
Prior to be-
ginning this course student 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 Sup-
pression 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 Mar-
shal Firefighter 1 curriculum. Students are provided the opportunity to
take the National Capitol tests for International Fire Service Accred-
itation Congress (IFSA) and National Board on Fire Services Profes-
sional 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 Acad-
emy. The preparation course will include classroom lecture and hands
on training.
Transfer Credit: Non-transferable.
Non-transferable.
phasis on topics that are likely to be encountered in day-to-day life,
Repeatability: May be taken a total of 1 time.
Introduces selected topics in Fire Technology not covered by regular
Lecture
Non-transferable.
ing safe use of hoses, tools, equipment, and ladders.
Repeatability: May be taken a total of 1 time.
Teaches basic wildland firefighting skills, laws, and regulations includ-
ing safe use of hoses, tools, equipment, and ladders.
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) 479-6274 for information
Waterstone Counseling: (831) 786-4734
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 30% from the current wait list and 70% random selection.
Students currently on the wait list retain their wait list # based on past mark date of application. Students who apply within the application window, May 1 - July 15, are eligible for 50% random selection. Stu-
dents placed into the program are notified by January each year.
Effective since the application window, May 1 – July 15, 2017, qualified applicants are no longer placed onto the wait list. If not se-
lected 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 as there are many questions.

Radiologic Technology A. S. Degree
This is a two-year associate in Science degree program providing professional training for radiologic technologists. Radiologic Technol-
ogy work is a professional environment at a hospital, clinic, or pri-
ivate 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 Re-
view 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 ac-
crreditation awarded by the JRCERT. A new class begins each year at the start of the fall semester. Students who successfully complete the program are eli-
2*Usually offered summer session; highly recommended immediately prior to fall program entrance.
Mathematics Core Requirement
The A. S. Mathematics Requirement may be met by successful com-
pletion of intermediate algebra or equivalent or a higher-level mathe-
matics 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 pro-
gram graduation requirements. Courses taken at other regionally ac-
ccredited 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 pro-
gram 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
This A. S. Degree requires completion of a 21-unit general education pattern (see Cabrillo College Catalog under Associate in Science De-

Core Courses (60.75 Units)

RT 50A Patient Care in Imaging Technology ............................................2
RT 50B Ethics and Legal Aspects of Radiologic Technology .....................1
RT 50L R. T. Patient Care Laboratory ..................................................0.25
RT 51 Radiographic Positioning I ............................................................2
RT 51L Positioning Laboratory I ..............................................................1
RT 52 Radiation Physics ..................................................................2
RT 53AL Basic Radiologic Technology Laboratory/ Clinic III ..............6
RT 53BL Radiologic Technology Laboratory/ Clinic I ..........................5.5
RT 53CL Radiologic Technology Laboratory/ Clinic II ......................5
RT 54 Radiographic Image Assessment ..................................................1
RT 60 Principles of Radiologic Imaging ..................................................2
RT 60L Applied Principles of Radiologic Imaging ................................2
RT 61 Radiographic Positioning II .........................................................2
RT 61L Radiographic Positioning Lab .....................................................2
RT 62 Principles of Radiation Protection ..............................................2
RT 63AL Advanced Positioning Lab/Clinic IV .......................................8
RT 63BL Advanced Positioning Lab/Clinic V .........................................8
RT 70 Principles of Fluoroscopy ............................................................1
RT 70L Applied Principles of Fluoroscopy ............................................0.5
RT 71 Radiographic Positioning III .........................................................2
RT 71L Positioning Laboratory III ..........................................................2
RT 72 Advanced Diagnostic Imaging Research ......................................2
RT 73 Medical Imaging Pathology .........................................................1
RT 82 Advanced Diagnostic Imaging .....................................................1
RT 83 Transition to the Professional Role ............................................2
RT 175 Advanced Patient Care: Venipuncture for Radiographers ..............0.5
Electives-Mammography
Units
RT 185 Principles of Mammography ....................................................2
RT 185C Principles of Mammography Lab/Clinic .................................1
RT 185L Principles of Mammography Lab ............................................1
Electives-Postprimary Computed Tomography
Units
RT 190A Computed Tomography Physical Principles ..........................3
RT 190B Computed Tomography Protocol and Procedures ................2
RT 190C Applied Computed Tomography Clinical Education ................2
Elective-Special Section and Anatomy
Units
RT 189A Sectional Anatomy ...............................................................2
Total Units 81.75

Radiologic Technology | 311310 | Public Safety, Fire Technology
Radiologic Technology | 313

RT 189A  Sectional Anatomy ..........................................................2
RT 190A  Computed Tomography Physical Principles ............... 3
RT 190B  Computed Tomography Protocol and Procedures .................. 2
RT 190C  Applied Computed Tomography Clinical Education ................... 6
Total Units 13

Radiologic Technology Venipuncture Skills Certificate
Learning Objective
Solve novel venipuncture problems with a variety of venous structures as presented with varying body types.

Required Course (.5 Units) Units
RT 175  Advanced Patient Care Venipuncture for Radiographers .......... 0.5
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 Technolo-
Repeatability: May be taken a total of 1 time.
Provides the concepts of optimal patient care including: physical assis-
tance, routine and emergency patient care, infection control, pharma-
cology, and bloodstream 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 Technolo-
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 pro-
viding 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 Technolo-
Repeatability: May be taken a total of 1 time.
Provides practical application of the fundamentals of patient care in ra-
diologic technology, to include radiation protection, body mechanics,
contrast media preparation, vital signs, anesthetics, 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 Technolo-
Repeatability: May be taken a total of 1 time.
Provides routine and non-routine radiographic positioning and relat-
ed 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 Technolo-
Co-requisite: RT 51L.
Repeatability: May be taken a total of 1 time.
Provides continued clinical application of classroom theory (RT51 and 61) and
lab practice (RT 51L and 61L) in clinical education facilities under
direct supervision. The student participates in radiographic/fluo-
Endoscopic procedures, radiology management systems, computerized
patient systems, radiation safety, and patient care.
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.
This course examines 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 equip-
ment, as well as maintenance of ongoing QA/QC procedures are em-
phasized.
Transfer Credit: Transfers to CSU.

RT 53A  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.
Reviews clinical application of classroom theory (RT 51 and 61) and
lab practice (RT 51L and 61L) in clinical education facilities 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 53B  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 and 61) and
lab practice (RT 51L and 61L) in clinical education facilities under
supervision, as well as maintenance of ongoing QA/QC 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.
Provides continued clinical application of classroom theory (RT 51 and 61) and
lab practice (RT 51L and 61L) in clinical education facilities under
direct supervision. The student participates in radiographic/fluo-
Endoscopic 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 outlin-
Ending 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.
Provides a foundation for evaluating all radiographic images by outlin-
ing them in the radiographic setting.
Transfer Credit: Transfers to CSU.

RT 60L  Applied Principles of Radiographic Imaging Lab 0.5 units; 1.5 hours Laboratory
Prerequisite: RT 52.
Co-requisite: RT 60.
Repeatability: May be taken a total of 1 time.
Applies theory of RT60 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, digi-
tal 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, relat-
ed radiation protection, technical factors and nursing skills related to
endovascular, 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 radiology 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 facets 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 manipulation 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 pathological and anatomic considerations with emphasis on radiographic appearance of disease and impact on exposure factor selection.
Transfer Credit: Transfers to CSU.

RT 72  
**Advanced Diagnostic Imaging**

1 unit; 1 hour Lecture
Prerequisite: RT 72.
Repeatability: May be taken a total of 1 time.
Prerequisite: Selection to the Radiologic Technology Program.
Repeatability: May be taken a total of 1 time.
Provides 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**

1 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.
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.
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 units; 2 hours Lecture
Prerequisite: BIOL 105
Repeatability: May be taken a total of 1 time.
Teaches sectional human anatomy for health care professionals. Emphasizes 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 units; 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 proper- ties and production of computed radiography imaging. Fundamentals include instrumentation and imaging, planar and volumetric postpro- cessing, radiation protection principles and standards, data acquisition and archiving. Patient factors related to other elements affecting im- age quality will be explained, as well as artifact production and reduc- tion and image communication. May be offered in a Distance-Learning Format.
Transfer Credit: Non-transferable.

RT 190B  Computed Tomography Protocol and Procedures
2 units; 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 for part of 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 clinical setting.
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 eligi- bility for application for certification and registration in Computed To- mography. May be offered in a Distance-Learning Format.
Transfer Credit: Non-transferable.

READING
Business, English, and Language Arts Division
James Weckler, Division Dean
Division Office, Room 301
Nancy Phillips, Department Chair (831) 479-6573
Aptos Counseling: (831) 479-6724 for appointment
Watsonville Counseling: (831) 786-4734
Call (831) 479-6478 for more information
http://www.cabrillo.edu/programs

READ 52  Speed and Comprehension
2 units; 2 hours Lecture
Prerequisite: READ 100 or READ 106 or appropriate Assessment score.
Repeatability: May be taken a total of 1 time.
Improves both reading speed and comprehension through practical strategies including timed readings, vocabulary development, and eye-movement exercises. May be offered in a Distance-Learning Format.
Transfer Credit: Transfers to CSU.

READ 100  College Reading
3 units; 3 hours Lecture
Repeatability: May be taken a total of 1 time.
Develops college level reading skills, emphasizing critical reading in content areas, identifying thought patterns, analysis, and critical thinking skills.
Transfer Credit: Non-transferable.

READ 106  Advanced 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 comprehen- sion. Open to students with below college level reading ability. Assignments using various materials and e-learning, both of which in- clude targeted readings two levels below transfer. 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 comprehen- sion. Open to students with below college level reading ability. Assignments using various materials and e-learning, both of which in- clude targeted readings two levels below transfer. Pass/No Pass grading only.
Transfer Credit: Non-transferable.

READ 2060L  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.
Focuses on vocabulary development. Emphasizes building vocabulary skills and practice in a variety of areas, ranging from basic skills and vocabulary work, to content-area reading, critical and analytical reading and vocational read- ing. May be taken for support in other courses, including basic skills, vocational, and transfer courses.

READ 158RM  Reading Math
0.5 – 1 units; 1.5 – 3 hours Laboratory
Repeatability: May be taken a total of 1 time.
Focuses on development of reading strategies to improve understand- ing of mathematics textbooks and word problems. Individual- ized 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 rec- ognition, 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 comprehen- sion. Open to students with below college level reading ability. Assignments using various materials and e-learning, both of which in- clude targeted readings two levels below transfer. Pass/No Pass grad- ing 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.
Focuses on vocabulary development. Emphasizes building vocabulary skills through independent study of context clues and word parts. Students work independent- ly, in the lab and online, with no formal class meet- ings, 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.
Focuses on vocabulary development. Emphasizes building general vocabulary skills through independent study of context clues and reading comprehension strategies. Students work independently, in the lab and online, with no for- mal 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.
Focuses on development of reading strategies to improve understanding of mathematics textbooks and word problems. Individual- ized and group instruction. 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 vari- ety of areas, ranging from basic skills and vocabulary work, to con- tent-area reading, critical and analytical reading and vocational read- ing. May be taken for support in other courses, including basic skills, vocational, and transfer courses.

REAL ESTATE
James Weckler, Division Dean
Division Office, Room 301
Mo Hassan, Department Chair, (831) 477-3201
Aptos Counseling: (831) 479-6724 for appointment
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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 proce- dures in California. Subjects covered will be real estate licensing proce- dures, 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 Bro- ker'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 prac- tice: 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 California real estate 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.
Addresses lending policies, problems, and rules involved in financing real property, focusing mainly on residential property.
Transfer Credit: Non-transferable.
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 family setting to the large, impersonal organization, from the workings of work to the world of sport, from social divisions of class, race, and gender to cultural bonds based on shared values and traditions. It emphasizes how individual behavior is influenced by the structure of society and how individual behavior can change the structure of society. The program at Cabrillo provides a solid core curriculum that includes general and topical courses. All classes emphasize multicultural and gender issues.

Society 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 careers, including teaching, journalism, law, business, communications, non-profit management, corrections/law enforcement, social work, counseling, urban planning, public service, and politics.

Cabrillo offers options for degree completion 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 an 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.

Sociology Courses

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 Converging

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


Electives (11-15 Units)

Any course number 1-99. 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 Converging

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


Program Model for Sociology

An Associate Degree requires 60 units appropriate to your education 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 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 advice for transfer to any 4-year institution.

General Education Core Courses (12 Units)

SOC 1 Introduction to Sociology: Understanding Society...3
SOC 1H Honors Introduction to Sociology: Understanding Society...3
SOC 7 Introduction to Anthropology: Archaeology...3
SOC 10 Race, Ethnicity, and Society...3
SOC 12 Crime and Society...3

Approved Sociology Electives (6-9 Units)

SOC 5 Gender and Society...3
SOC 9 Globalization and Society...3
SOC 10 Cultural Popularity...3
SOC 12 Crime and Society...3

Total Units 60

*Approved sociology course is required for transfer to CSU or UC. A statistics course is highly recommended.
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:
• 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.

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


Other courses approved for substitution for Core or List A:
SPAN 6A Spanish Through Film - Latin America
SPAN 6B Spanish Through Film - Latin America

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

Community College Systems and Civics, and Artistic Variety

Repeatability: May be taken a total of 1 time.

Repeatability: May be taken a total of 1 time.

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Sensitization to a university or college that is not part of the CSU system.
### Spanish Courses

#### SPAN 1 Elementary Spanish I
- **Requirements:** 5 units; 4 hours Lecture, 3 hours Laboratory
- **Prerequisite:** SPAN 1 or equivalent skills
- **Repeatability:** May be taken a total of 1 time.
- **Description:** 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 110

#### SPAN 2 Elementary Spanish II
- **Requirements:** 5 units; 4 hours Lecture, 3 hours Laboratory
- **Prerequisite:** SPAN 2 or equivalent skills
- **Repeatability:** May be taken a total of 1 time.
- **Description:** Further develops elementary language skills, reviews and expands grammar and vocabulary usage in speaking, listening, reading, 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 3 Intermediate Spanish I
- **Requirements:** 5 units; 4 hours Lecture, 3 hours Laboratory
- **Prerequisite:** SPAN 2 or equivalent skills
- **Repeatability:** May be taken a total of 1 time.
- **Description:** Develops and refines language skills in order to express more complex ideas and increases awareness of cultural norms, values, and events.
  - Transfer Credit: Transfers to CSU, UC. C-ID: SPAN 110

#### SPAN 4 Intermediate Spanish II
- **Requirements:** 5 units; 4 hours Lecture, 3 hours Laboratory
- **Prerequisite:** SPAN 3 or equivalent skills
- **Repeatability:** May be taken a total of 1 time.
- **Description:** Develops and refines language skills in order to express more complex ideas and increases awareness of cultural norms, values, and events.
  - Transfer Credit: Transfers to CSU, UC. C-ID: SPAN 200

#### SPAN 5A Advanced Grammar and Composition
- **Requirements:** 4 units; 4 hours Lecture
- **Prerequisite:** SPAN 4 or equivalent skills
- **Repeatability:** May be taken a total of 1 time.
- **Description:** Examines challenging components of Spanish grammar through exercises, extensive writing practice, reading, and oral presentations.
  - Transfer Credit: Transfers to CSU, UC.

#### SPAN 5B Advanced Grammar and Composition - Latin America
- **Requirements:** 4 units; 4 hours Lecture
- **Prerequisite:** SPAN 4 or equivalent skills
- **Repeatability:** May be taken a total of 1 time.
- **Description:** 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
- **Requirements:** 3 units; 3 hours Lecture
- **Prerequisite:** SPAN 4 or equivalent skills
- **Repeatability:** May be taken a total of 1 time.
- **Description:** 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
- **Requirements:** 3 units; 3 hours Lecture
- **Prerequisite:** SPAN 4 or equivalent skills
- **Repeatability:** May be taken a total of 1 time.
- **Description:** 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
- **Requirements:** 3 units; 3 hours Lecture
- **Prerequisite:** SPAN 2 or equivalent skills
- **Repeatability:** May be taken a total of 1 time.
- **Description:** 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
- **Requirements:** 3 units; 3 hours Lecture
- **Prerequisite:** SPAN 4 or equivalent skills
- **Repeatability:** May be taken a total of 1 time.
- **Description:** 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
- **Requirements:** 4 units; 4 hours Lecture
- **Prerequisite:** SPAN 4 or equivalent skills
- **Repeatability:** May be taken a total of 1 time.
- **Description:** 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 20A Mexican Civilization and Culture
- **Requirements:** 3 units; 3 hours Lecture
- **Prerequisite:** SPAN 4 or equivalent skills
- **Repeatability:** May be taken a total of 1 time.
- **Description:** Explores Mexican culture from the pre-Hispanic period to the present. Focuses on art, literature, history, and politics. Conducted in Spanish.
  - Transfer Credit: Transfers to CSU, UC.
STROKE AND DISABILITY LEARNING CENTER

SPECIAL EDUCATION
Health, Athletics, Wellness and Kinesiology Division
Cynthia S. T. Fitzergerald, PhD
HAWK Division, Associate Dean for Allied Health, Stroke Center & Adaptive Physical Education
Room HW 1100
Call (831) 477-3300 for more information
http://www.cabrillo.edu/programs

SPED 210 Adventive 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 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/functioning challenges.
Transfer Credit: Non-transferable.

SUBJECT/SPECIAL STUDIES
SUBJECT 805 Special Studies I
1 – 4 units; 1 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 805B Special Studies II
1 – 4 units; 1 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 805C 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 805S 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 Graulity, Division Dean Division Office, Room VAPA 1007
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, scenic design, scene painting, television production, theatre production management, stage management, teaching, and directing. Cabrillo offers suggestions 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 Theatre Arts Core Competencies (with an emphasis in the study of Theatre Arts):
1. Communication: Reading, Writing, Listening, Speaking, and/or Converging
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

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<thead>
<tr>
<th>Core Courses Select 18 units from:</th>
<th>Units</th>
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<tbody>
<tr>
<td>TA 7</td>
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<td>TA 10A</td>
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<tr>
<td>TA 10B</td>
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**Electives: Units**

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<th>Electives: Units</th>
<th>(Any Course Numbered 1-99)</th>
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**Total Units 60**

### Theatre Arts A.A. Degree - 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**

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<td>TA 10A</td>
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**Approved Electives Select 8 units from:**

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<tr>
<th>Approved Electives</th>
<th>(Any Course Numbered 1-99)</th>
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</table>

**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 Courses**

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**Total Units 15**

### Musical Theatre Skills Certificate

**Learning Outcome**

1. Assess, demonstrate, and synthesize techniques and skills necessary for work in technical theatre.

**Required Courses**

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<td>TA 81</td>
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**Total Units 7-10**

### Technical Theatre Skills Certificate

**Learning Outcome**

1. Assess, demonstrate, and synthesize techniques and skills necessary for work in technical theatre.

**Required Courses**

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**Total Units 17**

### Technical Theatre Skills Certificate

**Learning Outcome**

1. Assess, demonstrate, and synthesize techniques and skills necessary for work in technical theatre.

**Required Courses**

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**Total Units 7-10**

### 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 Courses**

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**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:

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<th>Required Courses</th>
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<td>TA 17</td>
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**Total Units 15**

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(Course numbers and descriptions are provided as per the original document, with units specified in the relevant sections.)
Theatre Arts Courses

TA 7 Introduction to Acting
3 units; 3 hours Lecture
Repeatability: May be taken a total of 1 time.
Prerequisites: Open to all. Introduces the history, cultural, and religious contexts of world theatre traditions from the origins of theatre through the 17th century. Examines major theories of acting within a framework of lecture, exercises, and scene work. Focus is on characterization. Materials fee may apply. May be offered in a Distance-Learning Format. Transfer Credit: Transfers to CSU. C-ID: THTR 117

TA 8 World Theatre History
3 units; 3 hours Lecture, 1 hour Laboratory
Repeatability: May be taken a total of 1 time.
Prerequisites: Open to all. Introduces the historical, cultural, and religious contexts of world theatre traditions from the origins of theatre through the 17th century. Examines major theories of acting within a framework of lecture, exercises, and scene work. Focus is on characterization. Materials fee may apply. May be offered in a Distance-Learning Format. Transfer Credit: Transfers to CSU. 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.
Prerequisites: Open to all. Introduces the historical, cultural, and religious contexts of world theatre traditions from the origins of theatre through the 17th century. Examines major theories of acting within a framework of lecture, exercises, and scene work. Focus is on characterization. Materials fee may apply. May be offered in a Distance-Learning Format. Transfer Credit: Transfers to CSU. C-ID: THTR 115

TA 10A Basic Acting Techniques
3 units; 3 hours Lecture, 1 hour Laboratory
Repeatability: May be taken a total of 1 time.
Prerequisites: Open to all. Introduces 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. C-ID: THTR 111

TA 10B Intermediate Acting
3 units; 3 hours Lecture, 1 hour Laboratory
Prerequisites: TA 10A or equivalent skills. Repeatability: May be taken a total of 1 time.
Prerequisites: Open to all. Explores an intermediate level theories, techniques and acting styles used 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. C-ID: THTR 152

TA 10C Advanced Acting
3 units; 3 hours Lecture, 1 hour Laboratory
Prerequisites: TA 10B or equivalent skills. Repeatability: May be taken a total of 1 time.
Prerequisites: Open to all. Explores 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.
Prerequisites: Open to all. 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.
Prerequisites: Open to all. Presents basic instruction in stage movement including dance, mime, stage combat, ta’ chi, creative movement, and contact scene study. Materials fee may apply. Transfer Credit: Transfers to CSU. UC.

TA 12B Beginning Improvisation
3 units; 3 hours Lecture
Repeatability: May be taken a total of 1 time.
Prerequisites: Open to all. 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 non-scripted 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 13A Intermediate Improvisation
3 units; 3 hours Lecture, 1 hour Laboratory
Repeatability: May be taken a total of 1 time.
Prerequisites: Open to all. Presents an intensive analysis of Shakespearean texts, in relation to verse and prose, 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 13B Intermediate Improvisation
3 units; 3 hours Lecture, 1 hour Laboratory
Recommended Preparation: TA 13A.
Repeatability: May be taken a total of 1 time.
Prerequisites: Open to all. Explores improvisation at an intermediate level deepening the experience 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.
Prerequisites: Open to all. Studies theatre, film, radio, and television scripts in a variety of genres through reading, discussion, and interpretation. Materials will be drawn from contemporary and historical texts in worldwide perspective. Emphasis on reading plays and scripts understanding their unique structure, character and author voices, historical and societal context. 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.
Prerequisites: Open to all. Presents an intensive analysis of Shakespearean texts, in relation to verse and prose, 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 16 Introduction to Directing
3 units; 3 hours Lecture
Repeatability: May be taken a total of 1 time.
Prerequisites: Open to all. 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.
Prerequisites: Open to all. Presents the rehearsal and performance of the Theatre Arts stage production, including practical problem solving in scenery construction, lighting, props, costumes, make-up, sound, management, and public relations. Materials fee may apply. Transfer Credit: Transfers to CSU. UC. C-ID: THTR 192

TA 24 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.
Prerequisites: Open to all. Presents the rehearsal and performance of the Theatre Arts stage production for the current semester. Must audition and be cast in current Theatre Arts production. Transfer Credit: Transfers to CSU. UC. C-ID: THTR 191

TA 30 Introduction to Stage Lighting
1 – 4 units; 2 hours Lecture, 3 hours Laboratory
Repeatability: May be taken a total of 1 time.
Prerequisites: Open to all. 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, 2 hours Laboratory
Repeatability: May be taken a total of 1 time.
Prerequisites: Open to all. 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.
Provides 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.
Provides 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.
Provides 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.
Explores 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 Imagination Workshop
1 unit; 1 hour Lecture, 5 hours Laboratory
Repeatability: May be taken a total of 1 time.
Explores theatre 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, legato, 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 dialogue. 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 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.

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
0 units; 3 – 9 hours Laboratory
Non-transferable.
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 529 Rehearsal and Performance for Older Adults
0 units; 3 hours Laboratory
Repeatability: May be taken a total of 20 times.
Provides the rehearsal and performance of a Theatre Arts stage production. Designed for older adults. Must audition and be cast in 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.

TA 527 Theatre Production Workshop for Older Adults
0 units; 3 – 9 hours Laboratory
Non-transferable.
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.
WELDING

Core Courses Semester #1: Units

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 GTAW, 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: Units

W 152A **Advanced Arc Welding .................................1
W 154 **Pipe Welding ................................................2

Semester #2:

W 158 *Welding Fabrication ........................................2

Semester #3:

W 152B **Advanced MIG Welding ............................1

Semester #4:

W 152C *Advanced TIG Welding .........................1

Total Units

*Requires W 150 or 151 (or demonstrated skill equivalence)

**Requires W 152 (or demonstrated skill equivalence)

Advanced 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.

Presents advanced training in GTAW (TIG) welding techniques, focusing on all positions 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 152 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 GTAW (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 positions and 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 metalworking techniques focusing on the history, development, and present-day practices used in the fabrication of architectural ornamentation. 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.

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 steel sheet 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:

W 151 TIG Welding .........................................................2
W 156 Introduction to Sheet Metal Fabrication ..........2
W 150 Arc Welding .........................................................2
W 152 *Advanced Welding .............................................2

Total Units 8

*Requires W 150 or 151 (or demonstrated skill equivalence)
WOMEN'S STUDIES

Human Arts and Social Sciences Division
Paul Harvel, 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

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 that 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 to transfer to any 4-year institution.

A. A. General Education Core Courses

<table>
<thead>
<tr>
<th>Units</th>
<th>Course</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>30</td>
<td>WS 1</td>
<td>Introduction to Women's Studies</td>
</tr>
<tr>
<td></td>
<td>WS 2</td>
<td>Global Perspectives on Women and Gender</td>
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<td></td>
<td>WS 3</td>
<td>Women in America</td>
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<td></td>
<td>WS 4</td>
<td>Honors Women in America</td>
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<tr>
<td></td>
<td>SOC 5</td>
<td>Gender and Society</td>
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</tbody>
</table>

Approved Electives

Select 18 units from the following:

<table>
<thead>
<tr>
<th>Units</th>
<th>Course</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>ANTH 2</td>
<td>Introduction to Anthropology: Cultural</td>
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<tr>
<td></td>
<td>ANTH 2H</td>
<td>Honors Introduction to Anthropology: Cultural</td>
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<td></td>
<td>ANTH 8</td>
<td>Anthropology of Religion</td>
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<td>ECE 32</td>
<td>Child, Family and Community</td>
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<td></td>
<td>GEOG 2</td>
<td>Cultural Geography</td>
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<td>GEOG 4</td>
<td>World Regional Geography</td>
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<td>HS 15</td>
<td>Honors Human Sexuality</td>
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<td></td>
<td>HIST 15</td>
<td>Recent American History</td>
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<td></td>
<td>PSYCH 1</td>
<td>General Psychology</td>
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<td></td>
<td>PSYCH 1H</td>
<td>Honors General Psychology</td>
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<tr>
<td></td>
<td>SOC 1</td>
<td>Introduction to Sociology: Understanding Society</td>
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<tr>
<td></td>
<td>SOC 1H</td>
<td>Honors Introduction to Sociology: Understanding Society</td>
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<tr>
<td></td>
<td>SOC 2</td>
<td>Contemporary Social Problems</td>
</tr>
<tr>
<td></td>
<td>SOC 2H</td>
<td>Honors Contemporary Social Problems</td>
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<tr>
<td></td>
<td>SOC 8</td>
<td>Introduction to Latina/o Studies</td>
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<tr>
<td></td>
<td>SOC 9</td>
<td>Globalization and Society</td>
</tr>
<tr>
<td></td>
<td>WS 5</td>
<td>La Mujer: Latina Life and Experience</td>
</tr>
</tbody>
</table>

Total Units: 60

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 issues of oppression affecting the lives of 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.

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. 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.

WS 3 Women in America

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. Examines 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 4 Honors Women in America

3 units; 3 hours Lecture
Repeatability: May be taken a total of 1 time
Honors track in Women in America. 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 major social, cultural, economic, and political forces affecting the lives of Chicanas/Latinas. Examines 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 6 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.

World Languages Transfer Information

American Sign Language, French, German, Italian, Japanese, Spanish

The Department of World Languages offers courses which serve as a basis for broad liberal education for advanced work in languages, as preparation for the teaching credential, and as supplementary preparation for many careers. Cabrillo language courses provide preparatory work for language majors and minors, satisfy requirements of other majors, and fulfill general education requirements. Cabrillo offers A.A. degrees in Spanish.

High School Preparation: Any high school preparation in world language is desirable if the language is declared as a college major. Two years of high school foreign language is equal to 1 semester at the college.

Continuous study of the language is expected, with the level of instruction dependent upon previous training. As a minimum requirement, the student should complete course 4 of the language by the end of the sophomore year. Some transfer colleges require world language majors to develop a minor, often suggesting another world language or English.

Transfer students have three sets of requirements to consider for successful transfer to UC, CSU and most private institutions: They are: 1) admission requirements to the specific university, 2) general education requirements at the specific university, and 3) lower division preparation in the major (courses needed to be admissible to the major). To ensure that you understand and include all of the above in your educational plan, it is essential to meet with a counselor early in your attendance at Cabrillo College. Information on equivalences for general education and major requirements at UC and CSU is available at www.assist.org.

World Languages Business, English, and Language Arts Division

James Wexler, Division Dean Division Office, Room 301
Francisco Iniguez, 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
FACULTY AND ADMINISTRATORS

Date of original appointment follows name.

BREZNER, CELIA Z. (1998) .................. Adaptive Physical Education
BRAUNHUT, EDWARD (1999) ....................................... Mathematics
BERGAMINI, JEFFREY A. (2013)............................ Computer Science
BELLIVEAU, KIM (1991) ................................................... Kinesiology
BARKEY , CHERYL (2000) ......................................................... History

FACUL TY AND ADMINISTRATORS

M.M., San Francisco Conservatory
B.M., Eastman School of Music;
M.A., San Jose State University
B.A., University of California, Santa Cruz;
B.A., M.A., University of California, Santa Cruz
B.S., M.S., California State Polytechnic University

BRAWNAGHER, LEE (1996) ........................................... Nursing
B.S.N., University of Delaware;
M.S., University of Colorado
BUELLA, ENRIQUE (2005) ................................. History
B.A., University of California, Santa Barbara;
M.A., University of California, Irvine
BULLUT, 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) ............................................. Counselling
B.S., M.S., California State Polytechnic University, Sacramento
CARBONE, PAOLO (2008) ...................... Soccer Coach & Physical Education
B.A., University of California, Santa Cruz;
MA, Saint Mary's College
CAROTHERS, JOHN H. (1987) ....................................... Biology
B.A., University of California, Santa Cruz;
Ph.D., University of California, Berkeley
CARR, PHILIP (2008) ........................................... Criminal Justice
B.S., M.S., San Jose State University
CARTER, ERIC (1996) ............................................ Culinary Arts and Hospitality Management
B.A., MA, San Jose State University
CARTER, JOSEPH (2008) ........................................... English
B.A., University of California, Santa Cruz;
MA, 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;
MM, University of Rochester;
MA, University of California, Davis
CHAO, MICHELLE (2002) ...................... Early Childhood Education
A.A, Pierce Community College;
BA, University of California, Santa Cruz;
MA, San Jose State University
CHURCH, MARGARET (2015) .................. Counseling, Accessibility & Support Center
B.S., University of California, Davis;
M.S., San Jose State University
CLARK, BRIDGETTE (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;
MA, University of California, Riverside
COLE, LAUREN (2016) ...................................... Counselling
B.A, University of California, Santa Barbara;
MA, California Polytechnic State University

COLOMBANI, LAUREN (2012) .......................... Medical Assisting
B.S., University of Southern California
COLDOS, DEBRA (2018) ...................... Mathematics
B.A., M.A., University of California, San Francisco
COMPOGNIS, LOUIS (1998) .................... Spanish
B.A., University of California, Berkeley;
MA, California State University, Sacramento
CRANE, NICOLE (2006) ...................... Biology (Botany)
B.A., University of California, Santa Cruz;
M.S, San Francisco State University;
MA, University of California, Santa Cruz
DASTGIR, ZARMINA (2001) ................ English as a Second Language
B.A, Kabul University, Afghanistan;
MA, University of Northern Idaho, Cedar Falls
DESMET, MARK (2011) .................. Mathematics
B.S., M.S., Western Washington University
DOMINGUEZ, ELIZABETH (2000) ..................... Counselling, CAP
B.A., M.A., University of California, Santa Cruz
DONOHUE, MICHELE (2014) .................. Dean of Student Services
B.A, Sonoma State University;
MA, 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
DWOLING, 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;
MA, University of Hawaii
FABOS, KRISTEN (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;
MA, City University of Seattle;
Ph.D, Arizona Pacific University
FOGGET, MENDOZA, MICHELLE (2013) ............ Counselling
B.A, University of California, Santa Barbara;
MA, San Jose State University

GALLAGHER-HEIL, JEAN (2006) ........ Early Childhood Education
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) .............................. Counselling
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, San Francisco
GIL, IRMA (1991) .................. Counselling
B.A., MA, Sacramento State University
GOCHIS, SUZANNE (2017) .................... Vice President/Assistant Superintendent
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
GRABEL, 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, EdD, Columbia University
B.B.A., Loyola Marymount University;
M.B.A., Loyola Marymount University;
M.A, California State University, Monterey Bay
GROSS, DEREK (2001) ..................... Custodial Supervisor
B.A, University of Phoenix
HALTER, MATTHEW (2012) .................. Biology (Human Anatomy & Physiology)
B.A, University of California, Santa Barbara;
M.A, University of California, Berkeley
HAMMER, GORDON (1999) ..................... Photography
B.A, Yale University
HANCECK, 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
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