2010–2011 Academic Calendar

Fall Quarter 2010
June 30  Admission Deadline for Overseas International Student Applicant on F-1 Visa (Separate Application Required)†
Sept. 20  Instruction Begins
Nov. 12  Veterans Day; Campus Closed
Nov. 25–26 Thanksgiving Recess; Campus Closed
Dec. 7–10 Final Examinations
Dec. 13–31 Winter Recess

Winter Quarter 2011
Oct. 31  Admission Deadline for Overseas International Student Applicant on F-1 Visa (Separate Application Required)†
Jan. 3  Instruction Begins
Jan. 17  Martin Luther King Jr. Birthday; Campus Closed
Feb. 18  Lincoln’s Birthday; Campus Closed
Feb. 21  Washington’s Birthday; Campus Closed
March 22–25 Final Examinations
March 28–April 1 Spring Recess

Spring Quarter 2011
Jan. 31  Admission Deadline for Overseas International Student Applicant on F-1 Visa (Separate Application Required)†
April 4  Instruction Begins
May 30  Memorial Day; Campus Closed
June 21–24 Final Examinations
June 24  Commencement Ceremony; 6 p.m.; Library Quad

Summer Session 2011
June 27–Aug. 7  Six-Week Session
June 27–Aug. 21  Eight-Week Session

†Orientation is required for all new F-1 international students and takes place three to four weeks prior to the start of classes. For details, access www.foothill.edu/international.
†The Summer Session 2011 calendar is tentative and subject to a final collective bargaining agreement.
†For additional important deadlines and dates, review the college calendar at www.foothill.edu.
On the Cover
Whether you want university-transfer preparation, career-training programs, basic skills improvement or professional development, you’ll find that Foothill College is a lively center for outstanding instruction and enriching student activities. Lives change in powerful ways at Foothill College.

We also have fun! From student clubs that match your interests to social events, from student leadership classes to actual student government, from intercollegiate athletics and intramural games to fine arts exhibits and performing arts concerts, Foothill offers you the total college experience.

Our students, faculty and staff come from a variety of backgrounds and life-stories. These traits, combined with our majestic campus, make Foothill a leader in providing students with a comprehensive, high-quality education.

As part of the Foothill–De Anza Community College District, we excel at student success. We accomplish this by providing access to a dynamic learning environment that fosters excellence, opportunity and innovation in meeting the diverse educational and career goals of the students and communities we serve.

Located in the high-tech heart of Silicon Valley, Foothill College and its sister school, De Anza College, serves the communities of Cupertino, Los Altos, Los Altos Hills, Mountain View, Palo Alto, Stanford, Sunnyvale and portions of San Jose.
Welcome to the 2010–2011 academic year at Foothill College!

As a community of scholars dedicated to student success, we welcome you to Foothill College, an outstanding choice for higher education.

In this time of economic uncertainty, Foothill College is navigating the current fiscal challenges under the strong leadership of its faculty, classified staff, administration, board of trustees and chancellor. We are addressing the current challenges through strategic use of limited resources, addition and expansion of external partnerships, and cultivation of a campus climate that engenders innovation and creativity.

Our faculty continue to seek new ways to improve student learning, as evidenced by the emergence of successful new programs such as Math My Way, that have earned national attention for improving student success. Our instructors participate in many local and national organizations to expand and share their knowledge. Foothill College instructors Rosemary Arca (Reading, Composition, Academic Skills) and Kathy Perino (Mathematics) were recently invited to participate in the Global Skills for College Completion Project (GSCC), a developmental math and writing project, funded by the Bill and Melinda Gates Foundation. The goal of the GSCC online “think tank”—comprised of just 26 outstanding basic skills educators in 16 states on 13 community college campuses—is to try out new ideas, develop innovative resources and introduce fresh ways of teaching developmental math and writing to community college students that will consistently increase students’ pass rates.

As a new student, you will find many outstanding facilities here at Foothill, and notice we are in the process of renovating existing buildings and constructing new educational facilities. We are deeply grateful to our community for passing Measure C in 2006, which allows us to complete maintenance, renovation and construction projects and keep our technology and learning environments current.

In saving the best for last, let me reveal that the secret of our creativity and innovation at Foothill College is our people! Students, community supporters and employees come together to create a vibrant, welcoming place of learning. Our community supporters contribute their time, money and good will, and they are an integral part of Foothill College’s achievements. Our beautiful facilities and grounds are cared for by colleagues who take great pride in a job well done. Our programs and services are delivered by dedicated individuals who are often local heroes and heroines, or state and national leaders in their fields, or winners of prestigious awards. Our students excel in academics, creative and performing arts, athletics, student government and community service. They are our raison d’être and they are our reason for joy!

Judy C. Miner, Ed.D.,
President
Foothill College
Important Campus Phone Numbers

Area Code 650 unless otherwise noted

Emergency 911
Adaptive Learning 949-7332
Admissions & Records 949-7325
Bookstore 949-7305
Career Center 949-7229
Counseling Appointments 949-7423
CTIS Computer Lab 949-7303
Disability Resource Center 949-7017
District Police (Non-emergency) 949-7313
English Writing Center 949-7290
ESL Writing Center 949-7923
Evening/Weekend Programs 949-7711
Extended Opportunity Program & Services (EOPS) 949-7207
Financial Aid 949-7245
Health Services 949-7243
Honors Institute 949-7638
IDEA Lab 949-7137
Internship Program Office 604-5560
Language Arts Lab 949-7452
Library 949-7392
Lost & Found 949-7313
Marketing & Communications 949-7362
Placement Testing 949-7650
Prerequisites/Matriculation Office 949-7512
Psychological Services 949-7910
Student Activities 949-7282
Theatre Box Office 949-7360
Transfer Center 949-7235
TDD for Hearing Impaired 948-6025
Tutoring Center 949-7447
Veterans Office 949-7001
Volunteer Center 949-7634

Middlefield Campus
949-6950
Admissions 949-6980
Bookstore 949-6975
Career & College Connections 949-6957
Counseling 949-6959
The Hub (Student Services & Computer Lab) 949-6958

Contents

2010–2011 Academic Calendar . . . . . . . . . . . . . . . . . . . . . . . . . . . . Inside Front Cover

College Profile ................................................. 5
Accreditation, 8
Campus Highlights, 8
Committed to Our Community, 7
Foothill: An Outstanding Community College, 6
Foothill College Mission, Vision, Values & Purpose, 6
Foothill-De Anza Community College District Mission, 6
Measures C & E Campus Improvements, 8
Our History, 6
Public Events & Services, 8
“The Most Beautiful Community College”, 8
We Celebrate Diversity, 7

Student Life ...................................................... 9
Athletics, 10
Campus Center, 10
Campus Clubs, 11
Campus Radio, 11
Cheerleading & Dance Squad, 11
College Hour, 11
Community Service, 11
Cultural Enrichment, 11
Intramural Sports & Recreation Programs, 11
Leadership, 12
Student Activities Program, 12

Student Services & Programs .................................. 13
Admission & Placement Testing Services, 15
Campus Support Centers, 15
Personal Support Services, 16
Special Assistance Services, 16
Special Studies & Programs, 18
Student Development Services, 14

Financial Planning & College Costs .......................... 21
Cost of Attendance, 23
Estimated Annual Cost of Attending Foothill College, 22
Examples of Additional Costs, 23
Financial Aid, 23
Instructional Materials Fees, 22
Other Aid, 25
Refunds & Repayments, 23
State Aid, 24
Student Fees, 22
Textbooks & Supplies, 26

Programs of Study .............................................. 27
Academic Divisions, 27
Apprenticeship Programs, 29
Build Your Foundation: General Education Coursework, 28
Certificate Programs, 28
Curriculum Advisory Committees, 29
Degrees & Certificates Offered at Foothill College, 30
Grade Requirements for Specified Career Program Courses, 29
Professional & Technical Programs Leading to a Career Upon Completion, 29
Select a Major, 28
Two-Year Career Programs, 29

Continued »
“I received a great deal of encouragement and broadened my learning experiences by participating in the Foothill Honors Institute. In addition to classroom lessons, there were a lot of life lessons and transferable skills that I learned at Foothill. Ultimately, I think Foothill College offers its students education, inspiration and opportunities.”

Ann Tai
Alumna, Foothill Honors Institute; earned the Foothill College Associate in Arts Degree in Sociology and transferred to the University of California, Berkeley, to pursue a bachelor’s degree in sociology.

College Profile

Foothill-De Anza Community College District Mission

Foothill College Mission, Vision, Values & Purpose

Our History

Foothill: An Outstanding Community College

Committed to Our Community

We Celebrate Diversity

Accreditation

“The Most Beautiful Community College”

Measures C & E Campus Improvements

Campus Highlights

Public Events & Services
College Profile

Foothill-De Anza Community College
District Mission
The mission of the Foothill-De Anza Community College District is student success. We accomplish this by providing access to a dynamic learning environment that fosters excellence, opportunity and innovation in meeting the diverse educational and career goals of our students and communities.

Foothill College
Mission, Vision, Values & Purpose

Our Mission
A well-educated population being essential to sustaining and enhancing a democratic society, Foothill College commits itself to providing access to outstanding educational opportunities for all of our students. Whether through basic skills, career preparation, lifelong learning, or transfer, the members of the Foothill College community are dedicated to the achievement of learning and to the success of our students. We affirm that our unwavering dedication to this mission is critical to the prosperity of our community, our state, our nation, and the global community to which all people are members.

Our Vision
Foothill College envisions itself as a community of scholars where a diverse population of students, faculty and staff intersect and are engaged in the search for truth and meaning. We recognize that by necessity this search must be informed by a multiplicity of disciplinary modes of inquiry. In order to ensure that every student has the opportunity to share in this vision, Foothill College commits itself to providing students with the necessary student support services, outstanding instruction, and opportunities for leadership both within and outside the classroom. By enacting this vision, the college ensures that it remains the distinctive and innovative institution it has been since its inception.

Our Values
- Honesty
- Integrity
- Trust
- Openness
- Transparency
- Forgiveness
- Sustainability

Our Purpose
To provide access to educational opportunity for all with innovation and distinction.

Foothill College Offers:
- Associate in Arts and Associate in Science degrees, and certificates
- preparation for transfer to another college, university or postsecondary institution
- career education, training and services
- basic skills, English as a Second Language (ESL), leadership skills and student development
- student support services to promote student success

Foothill’s success is measured by the following quality indicators:
1. Access: Educational Opportunity for All
2. Student Success: Completion of Student Goals
3. Pedagogy, Scholarship & Support of Learning
4. Climate for Learning
5. Fiscal & Enrollment Stability
6. Reputation: Innovation & Distinctiveness

Our History
The Foothill-De Anza Community College District was formed Jan. 15, 1957, following several months of study by citizens groups and the California Department of Education. The district covers an area of about 105 square miles and includes the Palo Alto Unified School, Mountain View-Los Altos Union High School and Fremont Union High School districts.

On Sept. 15, 1958, we opened a temporary campus on El Camino Real in Mountain View. The Los Altos Hills Main Campus was completed and opened to students in September 1961.

In 1967, the district opened its second campus, De Anza College, in Cupertino. The two colleges coordinate programs and services, thereby providing our students with the flexibility to enroll in courses at both campuses.

Foothill: An Outstanding Community College
Founded with the hallmark of educational opportunity for all, Foothill College is recognized internationally as one of the nation’s most outstanding community colleges. Students of all ages enroll at Foothill for a single class, one- or two-year degree programs, or to
complete general education requirements for transfer to four-year universities. Our academic programs lead to Associate in Arts and Associate in Science degrees. They also meet freshman and sophomore requirements of University of California, California State University and private education systems. In addition, we offer many professional and technical programs for students seeking re-training or career advancement.

Foothill serves northern Santa Clara County, educating more than 18,000 day and evening students at the Main Campus, Middlefield Campus in Palo Alto, online, and many community and industry sites each quarter.

Committed to Our Community
We are committed to community education. At Foothill College, we:
- Offer low-cost, quality education.
- Recognize that our students have different, changing educational needs.
- Strive to create a college community of students, faculty and other educational workers.

Our educational process should help you:
- Develop and recognize human dignity.
- Think for yourself, learn to learn, and practice creative arts and skills.
- Become a contributing community member.

We meet our commitments by providing:
- An academic program to help you transfer to a four-year college or university.
- Professional and technical programs to help you develop skills for job entry, re-entry and career upgrading.
- A general-education program to broaden educational and cultural experiences.
- Remedial and developmental education to bring basic skills up to full potential.
- Excellence in all academic programs, student services and community-outreach programs.
- Convenient community classrooms.
- Out-of-class activities so you can learn in less formal, more hands-on environments.
- A counseling and matriculation program to help you recognize your capabilities, and educational and life goals.
- Health services, psychological services, financial aid, job counseling and placement testing.
- Partnerships with social and educational agencies, business and industry to determine and serve our community’s educational needs.
- Cultural programs, recreational activities, resources and facilities available to the general public.

We Celebrate Diversity
We value the diversity of students on our campus and continually work to meet the needs of this entire population. Our faculty, staff and administrators believe that teaching a multicultural perspective is just as important as teaching reading, writing and technology in today’s world.
Accreditation
Foothill College is accredited by the Accrediting Commission for Community & Junior Colleges of the Western Association of Schools & Colleges. This organization is recognized by the Council on Higher Education Accreditation and the U.S. Department of Education.

Foothill College is also accredited by the American Veterinary Medical Association, American Dental Association Commission on Dental Accreditation, American Medical Association Council on Medical Education, and Commission on Accreditation of Allied Health Education Programs.

“The Most Beautiful Community College”
The Foothill College campus is located on 122 acres in the rolling foothills of Los Altos Hills. The campus adjoins El Monte Road and Interstate 280, the scenic Junipero Serra Freeway.

The American Institute of Architects has honored Foothill for its outstanding design, and a San Francisco Chronicle architecture critic called our campus “the most beautiful community college ever built.” The distinctive Pacific-style architecture harmonizes with the surrounding hillside community, creating a beautiful and informal atmosphere conducive to college study.

Measures C & E Campus Improvements
Measures C and E are plans to renovate existing college facilities as well as construct new facilities at Foothill College and De Anza College. Voters approved the passage of Measure E in 1999 and the passage of Measure C in 2006. Funding for Measure C and E projects is generated from general obligation bonds. These funds are not subject to state budget cuts and can only be used for facilities projects. To review Measures C and E projects at Foothill College, access www.foothill.edu.

Campus Highlights
- All-Weather Track
- Appreciation Hall
- Bamboo Garden & Azumaya Meditation Pavilion
- Campus Center
- Chinese Heritage Room
- Choral Building
- Computer Centers
- Dental Health Clinic
- Football Stadium
- Golf Instruction Complex
- Hubert H. Semans Library & Instructional Support Center
- Interdisciplinary Electronic Arts (IDEA) Center
- Japanese Cultural Center
- Krause Center for Innovation
- Language Arts Lab
- Lohman Theatre
- Lower Campus Complex
- Math, Physics & Chemistry Center
- Middlefield Campus in Palo Alto
- Multimedia Arts IDEA Computer Lab
- Observatory
- Olympic-Size Swimming Pool
- Robert C. Smithwick Theatre
- Softball/Soccer Field
- Student-Operated KFJC-FM Radio Station
- Tutorial Center
- Veterinary Technology & Environmental Horticulture Complexes
- Wellness Center

Public Events & Services
Performances: Foothill presents plays, concerts, gallery exhibits, films and lectures to enrich the cultural and educational experiences of community residents. Fine arts performances include music, dance, theater and special children’s programs. For information about upcoming events or to purchase tickets, call the Foothill Box Office at (650) 949-7360 or access www.foothill.edu.

Celebrity Forum: The highly successful Foothill College Celebrity Forum series, created by Dr. Richard Henning, brings high-profile speakers to Flint Center at De Anza College in Cupertino. For more information, call (650) 949-7176 or access www.celebrityforum.net.

Facility Rental
Foothill classroom, conference, physical education and theater facilities are available to the public when they are not being used for campus activities. Rental fees include rental, set-up, cleaning, necessary staff coverage and equipment.

If you are interested in renting a Foothill facility, contact the facilities coordinator to request an application. Visit the Physical Education Division, Room 2713, or call (650) 949-7380. To schedule an event in the Robert C. Smithwick Theatre or Appreciation Hall, call the Fine Arts & Communication Facilities Office at (650) 949-7252. To schedule an event at the Middlefield Campus facility, call (650) 949-6953.
“If I hadn’t had a community college in my backyard, there is no way I would have gone to college. This isn’t just my story; it’s true for thousands of Silicon Valley residents. Community colleges like Foothill provided me and annually more than one million Californians with solid academics, and enabled us to round out our college experience by pursuing leadership activities, athletics, performing arts and many other programs.”


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**Student Life**

**Athletics**

**Campus Center**

**Campus Clubs**

**Campus Radio**

**Cheerleading & Dance Squad**

**College Hour**

**Community Service**

**Cultural Enrichment**

**Intramural Sports & Recreation Programs**

**Leadership**

**Student Activities Program**
Student Life

Athletics
Foothill is a member of the Coast Conference of the California Community College Athletic Association and NorCal Football Conference. Our men’s intercollegiate teams compete in basketball, football, golf, soccer, tennis, swimming and water polo. Our women’s intercollegiate teams compete in basketball, water polo, soccer, tennis, volleyball, softball and swimming. For more information, call the Physical Education & Athletics Division at (650) 949-7222.

Campus Center
To enhance your college experience, Foothill has developed, designed and opened a state-of-the-art Campus Center. We invite you to use the new center for a meal or quick snack, take a break in the Hearthside Lounge, play an arcade game, and enjoy the breathtaking vistas from the center’s outdoor plaza. You’ll also find the following services and programs in the Campus Center:
- Altos Conference Room (Room 2019)
- Arcade & Recreation Area (Room 2149)
- ASFC Design Center (Room 2017)
- ASFC Smart Shop/OwlCard (Room 2016)
- Associated Students of Foothill College (ASFC) Student Government (Room 2011)
- Bookstore (Room 2301)
- Dean of Student Affairs & Activities (Room 2002)
- Dining Room (Room 2201)
- District Police (Room 2103)
- Health Services (Room 2126)
- Hearthside Lounge (Room 2313)
- Intramural Recreation Program (Room 2149)
- Middle College Program (Room 2152)
- Psychological Services (Room 2120)
- The Sentinel Newspaper (Room 2012)
- Service Learning Volunteer Center (Room 2014)
- Student Accounts (Room 2005)
- Student Activities Office (Room 2009)
- Toyon Conference Room (Room 2020)
Campus Clubs
Campus clubs and organizations cater to a variety of student interests, including academic, athletic, cultural, social, political, religious, special interest and service groups.

We encourage student participation in extracurricular organizations and authorize clubs to develop from sufficient student interest. Each club must have a faculty or staff advisor. For more information, call the Student Activities Office at (650) 949-7282.

Campus Radio
Foothill owns and operates KFJC-FM 89.7, a 250-watt educational radio station. If you are interested in technical operation or administration, and programming of educational and entertainment features, call the Fine Arts & Communication Division Office at (650) 949-7262.

Cheerleading & Dance Squad
Foothill’s Cheerleading & Dance Squad promotes college spirit throughout the year and allows participants to earn limited academic credit. Squad members serve as ambassadors of goodwill, school spirit, scholarship and leadership. For more information, call the Student Activities Office at (650) 949-7282.

College Hour
College Hour spotlights student activities—speakers, workshops, cultural programs, volunteer fairs, Club Day, Career Fair, Health Fair and University Transfer Day, entertainment, music and political forums—**Wednesdays from noon to 1 p.m.** Most classes are not scheduled during this hour so you can participate. For more information, call the Student Activities Office at (650) 949-7282.

Community Service
The Community Service Learning Program links Foothill students with non-profit community organizations in San Mateo and Santa Clara counties. Attend the on-campus Volunteer Fair, held in fall and spring, to learn more about opportunities to benefit youth, seniors, the environment, the homeless and many other worthy causes. For more information, call the Volunteer Center at (650) 949-7634.

Intramural Sports & Recreation Programs
Foothill’s Intramural Program includes a range of sports leagues and inter-division competitions, College Bowl, recreation tournaments, fun runs and video-arcade tournaments. For more information, call the Intramural Office at (650) 949-7813.

Jewish Heritage Month, Black History Month, Women’s History Month, Asian Pacific Islander Month, Latino Heritage Month and Gay & Lesbian Heritage Month are just a few of the popular events that have earned campus and community recognition. For more information, call the Student Activities Office at (650) 949-7282.

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Leadership
Student government provides our student body the opportunity to self-govern and participate with faculty, staff and administration. You can participate and gain valuable training and experience in the following areas:
- Administration
- Advocacy
- Broadcast communication
- Budget development
- Decision making
- Event coordination
- and objectives
- Governance
- Group dynamics
- Leadership theory and styles
- Marketing
- Organizational development
- Parliamentary procedure
- Planning
- Policy development and implementation
- Problem solving and conflict resolution
- Speech communication
- Student rights and responsibilities
- Team building
- Time management

You can also apply to be a campus ambassador to help with events, hospitality, campus tours and outreach activities.
Practical leadership experience is also available through the Associated Students of Foothill College (ASFC) Campus Council and campus-governance committees. Elections are held during Spring Quarter. For more information, call the ASFC Office at (650) 949-7281.

Student Activities Program
Foothill’s Student Activities Program offers opportunities to develop and enhance leadership skills, prepare for civic responsibility, explore diverse cultures, and help build a strong sense of college community. For more information, call (650) 949-7282 or visit Room 2009.
“You are an institution of so many firsts—the first community college to seek and receive accreditation in its first year, and the first community college to be master-planned and built in one piece.

You’ve continued your tradition of innovation in more recent years when the district created the first official board policy to provide support to faculty members who want to create, use or improve open educational resources as substitutes for costly college textbooks.”

U.S. Secretary of Education Arne Duncan,
Speaking at Foothill College’s 50th Annual Commencement Ceremony, June 25, 2010.
Student Services & Programs

Student Development Services

Matriculation
Matriculation is a state-mandated agreement between you and Foothill College to help you reach your educational destination. Our responsibility is to provide:
- An admission process.
- Orientation to college programs, services and procedures.
- Pre-enrollment placement testing and counseling.
- Advice and counseling for course selection.
- A suitable curriculum or program of courses.
- Continuous follow up of your progress.
- Referrals to support services.
- A program of institutional research and evaluation.

Your responsibility is to:
- Express an educational intent at entrance.
- Declare a specific educational objective within a reasonable period of enrollment.
- Be diligent about class attendance and completing assigned coursework.
- Strive to complete courses and progress toward an educational goal according to Foothill and California standards.

Orientation
The CNSL 50: Introduction to College Course
If you are a new student, new transfer or former student, you must enroll in the CNSL 50: Introduction to College course. Counseling staff will provide basic information about Foothill services and programs, and requirements for associate and bachelor’s degrees, general education and specific majors. Orientation topics may also include time-management techniques, study skills, selecting a major, college success factors, and general education and university transfer requirements.

Placement test scores are used in the CNSL 50 course as an advisory tool and to help you develop an educational plan for your skill levels. The course is offered each quarter and during Summer Session. See the Schedule of Classes CNSL 50 listing. For more information, call (650) 949-7296.

Counseling
Foothill counselors help students with class selection, registration procedures and personal issues. They use skills, techniques, interventions, logic and intuition to help you make decisions and set goals leading to successful college and life experiences. Counselors can help you:
- Make appropriate, successful educational decisions.
- Set realistic career goals.
- Adjust to changing roles in society.
- Resolve personal concerns that may interfere with your ability to succeed.

For a counseling appointment on the Main Campus or Middlefield Campus, call (650) 949-7423. Or, schedule an appointment online at www.foothill.edu/counseling.

Career/Transfer Center
The Career/Transfer Center offers career and transfer resources, workshops and advice. The career coordinator provides information on job-hunting, resume writing, interview techniques, and career exploration. If you are interested in transferring to a four-year college, the transfer coordinator can help with transfer information, completing applications and essays, and choosing the best college.

The Career/Transfer Center offers many services, including a resource of library of books, publications and videos, current college catalogs, EUREKA (computerized career-guidance software), job binders, transfer newsletter, and Internet access for career/transfer-related research.

Throughout the year, the center hosts representatives from the University of California and California State University campuses, and numerous private colleges and universities. These representatives meet one to one with students who plan to transfer. You must sign up in advance to meet with a representative. In Fall Quarter, college representatives visit the campus for Transfer Day to meet with students. In Spring Quarter, the center presents the Career & Job Fair at which more than 50 recruiters attend, ready to hire students for full- and part-time jobs and internships.

Each quarter, the Career/Transfer Center compiles a comprehensive calendar of workshops, events and campus tours. Transfer workshops include transfer admission agreements, essay writing for college applications, choosing a college, UC applications, and preparing to transfer to a private university. For more information, call (650) 949-7235. Career workshops include resume writing basics, resume writing critique, interviewing tips, choosing a college major, job search strategies, internships and salary negotiation. For more information, call (650) 949-7229.

To pick up a copy of the calendar, visit the Career/Transfer Center in Room 8329 or access www.foothill.edu/transfer and www.foothill.edu/career.
Admission & Placement Testing Services

Student Classifications
To understand Foothill admission and placement testing procedures, you need to know your student classification:

- **Continuing Student:** You were enrolled at Foothill last quarter.
- **Former Student:** You’ve attended Foothill, but were not enrolled during the previous quarter (Summer Session does not apply).
- **Freshman:** You’ve completed fewer than 45 units of college credit.
- **Full-time Student:** You’re enrolled in 12 or more units this quarter. Or you’re enrolled in 6 units during Summer Session.
- **International Student:** You have applied and been accepted to the Foothill College International Students Program.
- **New Student:** You’ve never enrolled at any college.
- **New Transfer Student:** You have attended a college other than Foothill.
- **Non-resident Student:** You have not met California residency requirements and must pay non-resident tuition.
- **Sophomore:** You’ve completed 45 or more units of college credit and haven’t earned a degree.

Placement Tests
Testing is required for students enrolling in CHEM 1A, 25 and 30A; ENGL 1A or 110; all ESLL (except 134, 136, 137) and all mathematics courses except MATH 230, 231 and 250. Placement testing is offered on a computer. Testing is conducted by appointment. To schedule an appointment at the Main Campus, access www.foothill.edu/placement and follow the instructions or call (650) 949-7230. To schedule an appointment at the Middlefield Campus, call (650) 949-6958.

If you have successfully completed college-level math, chemistry and English courses, you may be placed by a counselor. Bring your transcript to an appointment with a counselor. To schedule an appointment, call (650) 949-7423.

If you have placement test scores from another college, you may fax them to the Testing Office at (650) 949-7024. You may enroll in the following courses without placement testing: ENGL 100, ESL 134, 136, 137 and MATH 230 and 231.

If you have successfully completed an ESL course at another California community college, you can request that your transcript be evaluated by calling (650) 949-7250.

We also offer ability-to-benefit placement testing for students lacking a high school diploma and requesting federal financial aid. For details, access www.foothill.edu/placement or call (650) 949-7286.

If you have a verified disability, call the Disability Resource Center, (650) 949-7017 (voice) or (650) 948-6025 (TDD) to make accommodation arrangements.

For more information on placement testing services, access www.foothill.edu/placement.

Campus Support Centers

CTIS Computer Centers
CTIS computer labs are open for all students. If you are enrolled in CTIS courses, you receive priority access and printing capabilities. For more information, call (650) 949-7303, Main Campus; or (650) 949-6958, Middlefield Campus.

Krause Center for Innovation
Located in Building 4000, the KCI provides open access to a variety of multimedia resources and an open computing lab with Windows and Macintosh workstations. Students can use the lab for online research, papers or other class assignments. Hours for the 2010–2011 academic year are Mondays through Fridays, 7:30 a.m.–8:30 p.m., and Saturdays, 9 a.m.–5 p.m. For more information, call (650) 949-7680.

Language Arts Laboratory
Located in Room 6308, the Language Arts Lab offers a series of self-paced, individualized text-based and computerized courses on a credit/no-credit, non-transferable basis. The lab also has software to supplement ESL and foreign language instruction as well as a drop-in computer lab. For more information, call (650) 949-7452.

Library Services
The Hubert H. Semans Library has more than 90,000 books, periodicals, newspapers and a variety of multimedia resources. You can browse the best-seller reading collection or take a self-paced course to learn how to use a modern library. Our online catalog helps you locate books by subject, title or author. Various computer databases make it easy to find articles in periodicals. You can also access the Internet and search various databases and Web sites. For more information, call (650) 949-7086, hours; (650) 949-7608, reference desk; (650) 949-7611, circulation.
Math, Physics & Chemistry (PSME) Center
If you need help with math, physics or chemistry, we encourage you to visit the Math, Physics & Chemistry (PSME) Center. The center is staffed by Foothill’s physical sciences, mathematics and engineering faculty and graduate students who can spend time assisting you in a supportive environment. The center also has numerous computers with the latest math, chemistry and physics software applications. The PSME Center is located in Room 4213, and is open Monday through Friday. For information, call (650) 949-7042.

Media Center
Located in Building 3600, the Media Center provides access to a variety of multimedia resources, including non-print materials, audiovisual workstations, and an open computing lab with Macintosh and Windows workstations. Currently enrolled students can use the lab for online research, papers or other class assignments. For hours or more information, call (650) 949-7445.

Foothill Observatory
Operated by the Peninsula Astronomical Society, the Foothill Observatory offers weekly public programs. These programs allow Foothill students and the public to view the day and evening sky with the observatory’s large astronomical telescope. The observatory is adjacent to Building 4000. For hours of operation, call (650) 949-7334.

Tutorial Center
As a Foothill student, you have access to free tutoring in the Tutorial Center during day and evening hours. Visit the center in Room 3526 for assistance in a variety of subject areas. The Tutorial Center is home to drop-in tutoring, appointment tutoring and EOPS tutoring. Macintosh, PC and Internet access are also available. For hours, directions, tutor schedules or more information, call (650) 949-7444 or access www.foothill.edu/tutor. EOPS students should access www.foothill.edu/services/eops.

Writing Centers
English
Writing Center consultants are available to give you advice for writing assignments, job and college applications, and essay examinations. If you are enrolled in composition courses ENGL 110, 1A or 1B, you are strongly encouraged to use the center. The center accepts appointments and drop-ins. Visit Room 3612 or call (650) 949-7290.

English as a Second Language
ESL Writing Center consultants are available to give you advice for writing assignments and essay examinations. If you are enrolled in ESL 167, 25 and 26, you are encouraged to use the center. The center accepts appointments and drop-ins. Visit Room 6301 or call (650) 949-7923.

Personal Support Services
Health Services
The Health Services Office provides confidential health care services to students. Direct services include basic primary care appointments, vaccinations, physicals, blood-pressure checks, emergency first aid, smoking cessation counseling and acupressure massage. The office also sponsors speakers, presentations and conferences on health topics throughout the year as well as consultations with a registered dietician. Services are available by appointment only.

Planned Parenthood reproductive health-care services, pregnancy testing, birth control, and STD- and HIV-testing are available on a sliding-scale fee basis. For more information, visit Room 2126 or call (650) 949-7243.

Psychological Services
Licensed mental health professionals, counselors and graduate interns offer short-term, confidential, no-fee personal counseling to you and your dependents. Services include individual, couple, family and group counseling. Services are provided in the Psychological Services Office. For psychological services appointments or information, visit Room 2120 or call (650) 949-7910.

Housing
Foothill has no dormitory facilities, but the Student Activities Office maintains a rental-listing resource binder. Foothill College does not supervise, recommend or assume responsibility for any housing facility. To list available housing, call (650) 949-7282. To review the resource binder, visit Room 2009.

Special Assistance Services
Disabled Student Programs & Services
Adaptive Learning Division
The Adaptive Learning Division offers courses and services on the campus and in the community for physically, communicatively, learning, developmentally and psychologically disabled adults. Consult the Schedule of Classes for sites and courses under Adaptive Learning.
The Disability Resource Center, located in Room 5801, provides disability access information, academic support, computer training, counseling, on-campus shuttle and other services. Extended-time placement testing is available to qualifying students.

For on-campus service and disability accommodation information, call (650) 949-7017 or 949-7332, voice; or (650) 949-6025, TDD for hearing-impaired. For deaf services e-mail Brenda Davis at DavisBrenda@foothill.edu. For community-based program information, call (650) 949-7321.

To request this publication in alternative media such as electronic text, Braille or large print, contact Alternative Media Specialist Steven Sum, (650) 949-7673; SumSteven@foothill.edu.

Foothill offers an alternative path for the student with verified disability who requests academic modifications and does not want to participate in Disabled Student Program & Services. For more information, call or schedule an appointment with Rose Myers, Foothill College ADA/504 coordinator and vice president of Student Development & Instruction, in Room 7228 or call (650) 949-7228.

**EOPS/CARE for Disadvantaged Students**

Extended Opportunity Program & Services (EOPS) and Cooperative Agencies Resources for Education (CARE) assist academically disadvantaged and low-income students.

In addition to offering financial aid (detailed in the financial aid section of this catalog), EOPS and CARE offer counseling/advising, private tutoring, workshops, peer advising and transfer assistance. Staff and peer advisors provide useful insights because they have varied backgrounds and have experienced similar challenges.

The EOPS and CARE offices are located in the Student Development Center in Room 8202. For program-entry requirements, call (650) 949-7207, or access www.foothill.edu/services/eops.

**Veterans Assistance & Services**

The Admissions & Records Office and Counseling Division assist veterans in planning their educational goals while on the new Montgomery G.I. Bill, Veterans Educational Assistance Program or Selected Reserve Education Assistance Program. Foothill accepts credit from institutions accredited by one of the six regional accrediting associations or follow the recommendations of the American Council on Education. Assistance for dependents who qualify for educational benefits is also available.

According to policies of the United States Veterans Administration, students receiving VA educational benefits (veterans, reservists, dependents) must maintain satisfactory progress. Students receiving VA benefits who fall below a 2.0 grade point average (GPA) will be placed on academic probation. If unsatisfactory progress continues for two consecutive quarters, students will have benefits suspended until GPA returns to satisfactory progress of 2.0 GPA or better.

For more information, call the Foothill Veterans Office at (650) 949-7001 or e-mail XuerebCarmela@foothill.edu.
Refunds & Grading Options for Students Called to Active Military Service
If you are called to military duty before completing your term of study, you may choose from the following options.

- **Refund**: Petition for an official withdrawal with a full refund of enrollment fees, student fees and non-resident tuition, if applicable. You’ll receive a full refund for all books and materials purchased from the college bookstore.
- **Credit**: Petition for an official withdrawal with credit for enrollment fees, student fees and non-resident tuition, if applicable, toward future enrollment. You may later opt to receive a refund.
- **Grade of Incomplete**: Request a grade of I (Incomplete) from the instructor. Regulations require you to complete the course within one year, but you can request an extension in special circumstances.

Forms for these services are available in the Admissions & Records Office in Room 8101.

Special Studies & Programs

**Professional & Workforce Development**
The Professional & Workforce Development Program for the Foothill-De Anza Community College District works to provide training and professional development opportunities for those in or entering the Silicon Valley workforce. The program contracts with employers to train employees on site at their workplace and develops new programs that have the goal of preparing the workforce for emerging fields. Programs under its auspices include the Center for Applied Competitive Technologies, which serves the technology and manufacturing sectors with in-demand consulting and training services in process improvement and other areas. For more information, visit the program office in Room 4057, call (650) 949-7797 or access SiliconValleyTraining.fhda.edu.

**Campus Abroad Program**
Study in France, Ecuador, England, Italy, Spain, Costa Rica, Ireland, West Africa or Vietnam and earn Foothill course credit through our Campus Abroad Program. You’ll enjoy a unique opportunity to immerse yourself in international culture. Field trips enhance coursework taught by Foothill-De Anza faculty at our campus sites abroad. Foreign language proficiency is not required, although we encourage you to investigate Foothill foreign-language courses.

Program fees include cultural and social activities; housing; medical, baggage and fee-refund insurance; meal plans; and transportation at some sites.

For more information, call the Campus Abroad Program Office at (650) 949-7614.

Cooperative Work Experience Program
Foothill offers credit for both general and occupational work experience education through the Cooperative Work Experience (CWE) Program. The CWE Program is designed to help students enhance their academics and build work-related skills. College credit may be earned by those students who work (full or part time) or for those who volunteer their services at approved agencies. Both Foothill and De Anza colleges have coordinated classroom instruction and work experience with a number of employers in business, industry, government and other professions. CWE Program participation information, employment and eligibility criteria are available at the CWE Office in Room 4128. For more information, call (650) 949-7205.

**Evening College**
If you work during the day or would prefer to take classes in the late afternoon, evening or weekend, Foothill’s Evening College offers hundreds of classes each quarter. The Evening College Office, located in Room 1910. For more information, visit or call (650) 949-7711.

**Foothill Global Access (Distance Learning Program)**
Foothill Global Access (FGA) features online courses including lectures, discussion, assignments and tests delivered via the Internet with regular opportunities for electronic interaction with the instructor and other students. To enroll in online classes you must have access to a computer and an e-mail account.

For more Foothill Global Access information, visit www.foothill.edu/fga or call (650) 949-7446.

**International Programs**
Establishing an international presence is a Foothill priority. Foothill College has a long history of educating international students since its opening in 1957, and its graduates hail from many diverse corners of the world, from Tonga and Ivory Coast to Kyrgyzstan, Nepal and Latvia.

The International Programs Office caters specifically to international students on F-1 visas. We provide counseling and assistance to more than 800 F-1 students from more than 70 different countries. F-1 status is available to foreign citizens who commit to study full time in the United States in programs leading to an associate degree or bachelor’s degree at a four-year university through Foothill’s transfer pathways. Admission to Foothill is flexible, convenient and personalized: Applications are accepted three times a year for Fall, Winter and Spring
quarters. For admissions requirements and application procedure, access the admissions section at [www.foothill.edu/international](http://www.foothill.edu/international).

Foothill also hosts international students on other visa types, such as J-1, H-1B, H-4, L-2 or F-2. The college has approximately 1,200 international students on all visa types, earning Foothill a #11 spot in the U.S. on the [Institute of International Education's Open Doors Report](http://www.iie.org) ranking associate institutions with the largest and most diverse international student populations. Applicants who do not hold or intend to apply for an F-1 status are considered domestic students for application purposes and should apply as non-residents by completing the [Domestic Student Application Form](http://www.foothill.edu) at [www.foothill.edu](http://www.foothill.edu).

Foothill’s International Programs Office provides some informational support to overseas applicants who are permanent residents, dual citizens or hold a U.S. visa other than F-1. A special orientation session is offered once a quarter for non-F-1 visa holders with international backgrounds. For more information, call the Foothill Outreach Office at (650) 949-7511 or e-mail [foothilloutreach@foothill.edu](mailto:foothilloutreach@foothill.edu).

The International Programs Office features a team of caring multilingual professionals who ensure that students have an outstanding educational experience at Foothill and in the U.S. Our services include a new student orientation program with comprehensive academic, immigration and cultural counseling; regular immigration advising and seminars by a dedicated advisor regarding regulations that affect F-1 student status from passports, visas, employment, travel and academic issues; CINTAX tax-filing assistance program; medical insurance program; and publication of the [I-NEWS monthly newsletter](http://www.foothill.edu/i-news). Additionally, the office creates programs and initiatives that support international students as they adjust to the campus and community, expand their horizons and share their unique heritage and cultural backgrounds. Special activities include monthly coffee hours, free tickets to Celebrity Forum, field trips to Bay Area attractions, Thanksgiving dinner, ice-skating trip and International Student Connection Club. The office also coordinates large-scale programming initiatives aimed at internationalizing the Foothill campus, such as the annual International Film Festival, International Night and Lunar New Year celebrations.

For information about admissions, call (650) 949-7293 or e-mail [fhinternational@fhda.edu](mailto:fhinternational@fhda.edu). For information about international marketing and activities, call (650) 949-7159 or e-mail [fhinternational@fhda.edu](mailto:fhinternational@fhda.edu).

**Internship Program**

The Foothill-De Anza Community College District Internship Program offers a unique opportunity to gain valuable experience under the mentorship of a professional at a major Silicon Valley corporation or public agency. Internships enhance your university transfer application as well as your future employment prospects. As an intern, you’ll work 20 hours per week during the academic year and 40 hours per week during Summer Session.

Foothill College offers one-year paid internships for students in most majors such as psychology, business, engineering, computer science, graphic arts, physical and biological sciences, office administration, multimedia and many other majors. Internships are sponsored by job sites such as NASA Ames Research Center, Apple Computer, TiVo, SETI, Computer History Museum, Foothill College and many other corporations and public agencies. U.S. citizenship is required at some internship job sites.

To get started, attend the program’s on-campus information sessions, access [internships.fhda.edu](http://internships.fhda.edu), e-mail [internships@fhda.edu](mailto:internships@fhda.edu) or call (650) 604-5560.

**Middle College: The High School Alternative**

Foothill Middle College Program coordinators understand that not all students fit the mold of the traditional high-school student. This alternative program works with at-risk students to rekindle the enthusiasm for learning.

This program offers a serious learning environment where you must take control of your own learning, explore individual interests through more diversified course offerings, and complete high school graduation requirements. Middle College is based at the Main Campus. For an application or more information, call (650) 949-7168.

**Middlefield Campus & Off-Campus Programs**

Foothill has offered classes at community sites for more than two decades. Today, approximately 4,000 of our students enroll in classes at Foothill’s Middlefield Campus and more than 50 other convenient community locations. The Middlefield Campus, located at the Cubberley Community Center in Palo Alto, is a full-service campus. It offers computer labs, an art lab, student lounge, gyms, weight room and classrooms. The Middlefield Campus is also home to the Foothill Child Development, REACH Post-Stroke, Paramedic, EMT and Pharmacy Technician programs. A variety of support services are available at the Middlefield Campus, including counseling, financial-aid assistance, open PC and Mac computer labs, OwlCard distribution and photo station, and placement testing.
services. We can process all admissions and registration transactions at either the Middlefield Campus or Main Campus.

For Middlefield Campus/Off-Campus programs information, call (650) 949-6950. For Middlefield Campus Student Services, call (650) 949-6958.

**Occupational Training Institute**

The FHDA Occupational Training Institute (OTI) provides job training and employment services at no cost for eligible residents of Santa Clara County. You may qualify if you are unemployed due to a company layoff, line or division closure, or you are economically disadvantaged. A variety of short-term training programs are available. OTI pays for college fees, books and required class materials for qualified students. Job preparation classes, placement assistance, retention and customized follow-up services are offered at no cost to candidates and employers. Additional support services include referrals to child care providers, transportation, financial aid and tutorial services. OTI is located in Room 5004. For more information, call (650) 949-7601.

OTI also serves as liaison for CalWORKs, offered to Santa Clara or San Mateo county residents who receive or have applied for Temporary Assistance for Needy Families (TANF). A variety of services are available to CalWORKs recipients enrolled in the program. For more information, call (650) 949-7465.

**Project Veterans Program**

Foothill College offers veterans and active duty personnel the unique opportunity to learn new skills, adapt their military skills to civilian life, and earn a college degree or career certificate. Project Veterans is dedicated to helping you identify and pursue comprehensive academic and career-training programs that meet your personal and professional goals. We help armed services personnel achieve their educational goals by addressing their specialized needs in a college setting. We encourage veterans interested in pursuing a vocational goal, college degree, apprenticeship program, or taking courses for personal enrichment to begin their educational experience through Foothill’s Project Veterans Program.

For more information, e-mail Project Veterans Coordinator Charlie McKellar at McKellarCharlie@foothill.edu or call (650) 949-6955.

**Short Courses & Non-Credit Courses**

Foothill and De Anza colleges offer approximately 150 non-credit, fee-based short courses each quarter. Nearly 12,000 students enroll in these courses each year. The Short Courses Office is located at De Anza College in the Student and Community Services Building. In accordance with the Civic Center Act, the college is only designated as a place for community groups when there is no interference with the regular educational program. For more information, call (408) 864-8817.

Foothill College also offers a variety of non-credit courses at its Middlefield Campus and other off-campus locations. There are no fees for these non-credit classes and there are no residency requirements. Non-credit class offerings include job and employment preparedness; short career-training and vocational courses; parenting education; and college skills and Bridge to College classes. For more information, call Foothill’s Middlefield Campus Career & College Connections at (650) 949-6959.
“To get the most out of Foothill College you must be ready to take advantage of opportunity. This strategy paid off for me. With the few hours that I spent applying for financial aid and scholarships I’ve been able to completely pay my way through college. This is especially important for me because growing up with little money, higher education was never talked about in my family. I never thought it possible that I would be where I’m today, and if it was not for financial aid resources, I know my story would have turned out very differently.”

Julie A. Berkovatz attended Foothill College for three years and completed the Associate in Arts Degree in Graphic & Interactive Design in 2009. She then transferred to San Jose State University to further pursue the study of graphic design.
Financial Planning & College Costs

Student Fees
If you’re a California resident, you’ll pay $17 per unit1. The non-resident tuition fee is $119 per unit, and the foreign student tuition fee is $130 per unit.

Foothill charges additional fees for Campus Center use, on-campus parking, lab courses, student-body activities (voluntary) and health services. International F-1 Visa students are required to purchase comprehensive health insurance for $390 each quarter.

All fees, which are posted online at www.foothill.edu and listed in the quarterly Schedule of Classes publication, are subject to change. Tuition and fees may be refunded under certain circumstances; the specific refund policy is posted online and listed in the Schedule of Classes. Direct questions about tuition and fees to the Admissions & Records Office in Building 8100 or call (650) 949-7325.

Instructional Materials Fees
In some courses, there will be an instructional materials fee. These fees, detailed in the Schedule of Classes, reflect the actual cost for materials, meaning the cost is usually lower than if you purchased the same items separately. Unless there’s an issue of health or safety, you can either pay the fees to the college or provide your own materials of equal quality. Your instructor will provide a list of required materials.

Estimated Annual Cost of Attending Foothill College
It’s important for you to financially plan your education. The following cost estimates are calculated for a student attending Foothill College full time (enrolled in 15 units) for nine months.

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1 Fees are subject to change by California legislative action.
2010–2011 Cost of Attendance

<table>
<thead>
<tr>
<th>California Resident (9 months)</th>
<th>Reside At Home No Dependents</th>
<th>All Others</th>
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<tbody>
<tr>
<td>Fees</td>
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</table>

(§) Based on institutional average
15 units x $17* per unit = $255 + $30 Basic Fee x 3 Quarters = $855.
*Fees are subject to change; excludes cost of textbooks.

Additional Fees
- Materials Fee: amount varies.
- Non-Resident Tuition Fee: $119 per unit per quarter.

Examples of Additional Costs
For students enrolled in allied health programs (primary care associate, dental hygiene, etc.), special fees, lab fees, tooling, and other related costs may be added to the normal cost of attendance. Study Abroad Programs have additional costs that may be added to a student's normal budget. Student loan fees are added. Expenses for dependent care and disability-related costs may also be considered with documentation.

Refunds & Repayments

Refunds
The college maintains a refund policy for tuition and fees at the Admissions Office, and book purchases at the bookstore. In most cases, a student can request a refund for classes dropped during the first two weeks of classes. The Admissions & Records Office and Bookstore can provide the most current policies for obtaining a refund.

Repayment
The student who withdraws from the college on or before 60 percent of the quarter is completed, may be required to repay Title IV funds. The funds are repaid to the Financial Aid Office and must be returned within 30 days after the college's determination that the student has withdrawn.

Financial Aid

Are You Eligible?
Financial aid eligibility is based on need—the difference between what you and your family can provide and college expenses.

Your financial need is determined by the information you and your family provide through the Free Application for Federal Student Aid (FAFSA) and any Foothill College additional paperwork. Regardless as to whether the application shows unmet need or not, we may be able to help. The total amount offered cannot exceed your documented financial need, and the monies must be used solely to meet cost of attendance at Foothill (refer to chart at left).

If you are in default on a loan, or owe an overpayment on a grant or loan, you will not be eligible for financial aid until the situation is satisfactorily resolved.

Eligibility requirements are generally established once you've shown, through a completed application, that you:
- Have applied for admission.
- Have enrolled in an academic program that requires 24 units or more to complete.
- Maintain satisfactory academic progress.
- Demonstrate verifiable financial need. Some exceptions may apply. Consult the Financial Aid Office for details.
- Show academic major/goals and units of enrollment that can be applied to an educational plan.
- Have a high-school diploma, GED, have passed an independently administered examination approved by the Department of Education, or have shown the ability to benefit through prior unit completion.
- Are a U.S. citizen, permanent resident or other eligible non-citizen.
- Have a valid Social Security Number.
- Register with Selective Service if required.
- Not owe a refund on any grant or be in default on any student loan.

Academic Competitiveness Grant (ACG)
The federal Academic Competitiveness Grant will provide up to $750 for the first year of undergraduate study and up to $1,300 for the second year of undergraduate study to the full-time student who is eligible for a Federal Pell Grant, and who has successfully completed a rigorous high-school program, as determined by the state or local education agency and recognized by the U.S. Secretary of Education. The half- or three-quarter-time student will have awards prorated. The second-year student must also have maintained a cumulative grade point average of at least 3.0.

Federal Pell Grant
Federal Pell Grants are awarded to undergraduates based on financial need. They range from $555 to $5,550.

Federal Supplemental Educational Opportunity Grant (FSEOG)
This federal program may be an option if you have exceptional financial need and would be unable to continue your education without a Pell Grant. The FSEOG Award is up to $600 per academic year at Foothill College.
Federal Work Study (FWS)
If you have financial need and want to earn a part of your educational expenses through employment, Federal Work Study (FWS) may be an option. You can work up to 25 hours per week while classes are in session and 40 hours during school vacations, however you must be enrolled in a minimum of six units to be eligible for FWS. If you receive an FWS award, it is your responsibility to schedule an interview with the Financial Aid Office for FWS placement assistance.

Federal Direct Perkins Loan
Borrow up to $3,975 a year at a lower-division undergraduate level from this campus-based program with limited funding. You will begin repaying the loan nine months after you graduate or drop below half-time enrollment. During the repayment period (up to 10 years), you'll be charged 5 percent interest on the unpaid balance.

Federal Direct Subsidized & Unsubsidized Student Loan
Federal Direct Loans are made by the U.S. Department of Education. As a first-year undergraduate, you can borrow up to $3,500 subsidized per year. As a second-year undergraduate, you can borrow up to $4,500 subsidized per year. Additional Unsubsidized Stafford may also be available annually.

Federal Direct Loan totals may not exceed $31,000 for dependent undergraduates and $57,500 for independent undergraduates (no more than $23,000 can be subsidized). You begin repayment six months after you graduate or drop below half-time enrollment. During the repayment period, and upon receipt of funds for unsubsidized loans, you will be charged a fixed interest rate that is capped at 8.5 percent on the unpaid balance and adjusted for new loans each July 1. As of July 1, 2010, the interest rate will be 4.5 percent.

Federal Direct PLUS Loan for Parents
Federal Direct PLUS Loans are made by the U.S. Department of Education. Parents of dependent undergraduate students may borrow up to the maximum of the amount determined to be unmet educational expenses.

A determination of need must be made, but Federal Direct PLUS eligibility is based on unmet educational expenses. Interest charges begin upon receipt of the loan.

State Aid
Extended Opportunity Program & Services (EOPS)
This state-funded program has been designed to help colleges to recruit and retain those students affected by language, social and economic disadvantages who otherwise might not attend college. EOPS offers a staff of trained professionals eager to assist these students to achieve academic, career, and personal goals. Full-time enrollment (12 units) is required.

CAL Grants
To be eligible, in addition to federal aid requirements, a student must:
- be a U.S. resident or eligible non-citizen, and
- be a California resident, and
- not have a bachelor’s or professional degree (except extended Cal Grant A or B awards for a teaching program or other five-year program), and
- file a completed FAFSA and Cal Grant GPA Verification Form by the annual March 2 deadline.

CAL GRANT A: Covers fees at the UCs, CSUs, and private institutions in California. This award may not be used to pay for community college fees. Funding for students who are enrolled at community colleges may be held in reserve for up to three years.

CAL GRANT B: Is for high-potential students from disadvantaged or low-income families who otherwise would not be able to pursue a higher education. California community college awards are up to $1,551 per year.

ENTITLEMENT AWARD: Every graduating high school senior who has a grade point average of at least 2.0, meets the Cal Grant financial and eligibility requirements and applies by March 2 within one year of graduation is guaranteed this award.

COMPETITIVE AWARD: The student who will enroll at a California community college, although strongly encouraged to apply by March 2, has a second annual deadline of Sept. 2. Other students who meet the basic Cal Grant eligibility requirements and who have at least a 2.0 grade point average may compete for this award.

CAL GRANT C: Helps vocationally oriented students acquire marketable job skills within a short time. Full- or half-time training must be for at least four months and lead to a recognized occupational goal—diploma, associate degree, license qualification or certificate. Funding is available for up to two years, depending on the length of the program, as long as academic progress is acceptable. Awards for California community college students are limited to up to $576 in training related costs.
California Chafee Grant
This federal program, administered by the California Student Aid Commission, offers college and vocational school financial aid to youth aging out of a foster care program. For up to $5,000, the student must demonstrate financial need, meet basic eligibility requirements, complete the FAFSA and the Chafee Grant Application available at www.csac.ca.gov.

Board of Governors Fee Waiver (BOGW)
While state law requires that students attending California community colleges pay an enrollment fee, the California Community Colleges offer the BOGW. This grant program waives enrollment fees for the academic year and Summer Session.

If you are a California resident, you qualify for a BOGW if any one of the following statements applies to your current status:
- You have qualified for financial aid and your need hasn't been met;
- You or your family are receiving TANF/CalWORKS, Supplemental Security Income (SSI) or General Assistance/General Relief;
- You have received certification from the California Department of Veterans Affairs or the California National Guard Adjutant General that you are eligible for a dependent’s fee waiver; or
- You meet income standards; year specific
- You have documentation that you are a recipient or the child of a recipient of the Congressional Medal of Honor.
- You have documentation that you are a surviving dependent of any individual killed in the Sept. 11, 2001 terrorist attack.
- You have documentation that you are a dependent of a deceased law enforcement/fire suppression personnel killed in the line of duty.

Applying for BOGW
- You are required to submit a completed BOGW Application Form each academic year. Print the form online at www.foothill.edu/aid or pick up the form in the Financial Aid Office or
- You must submit a completed FAFSA each academic year at www.fafsa.gov.
- Only one application is required per year (July 1–June 30).
- Applications are accepted until the end of each quarter. It is not possible to process applications for prior quarters.
- Because the BOGW is not tied to any other financial aid program, the BOGW form can be processed quickly and you can register immediately.
- You do not have to be enrolled in a specific number of courses to apply for the BOGW.

Other Aid

Emergency Loans
If you face an unexpected educational emergency, Foothill offers short-term loans up to $200. To qualify, you must be enrolled full time (12 units), purchase a Foothill College OwlCard and meet satisfactory academic progress requirements. These 30-day loans are interest-free. An overdue loan may be subject to additional late fees, registration holds, and assignment to collection services. Emergency loans are administered through the Financial Aid Office. For information, call (650) 949-7245.

Employment
If you're interested in working to help defray the cost of attending college, consider a part-time, on-campus position. Most of these jobs pay from $8 to $14/hour. Jobs that are not based on financial need are called “district” employment, and you must be enrolled in a minimum of six units to be eligible for these jobs. For information, call (650) 949-7245.

Scholarships
Several hundred thousand dollars in campus and local scholarships are awarded annually to Foothill students. Scholarships, which vary in amount, are considered academic gifts and need not be repaid. They’re generally based on academic standing, financial need, potential progress in major fields of study, and college or community activities. Scholarships are computed as resources for students receiving financial assistance.

A listing of current scholarships is available in the Financial Aid Office and at www.foothill.edu/aid.

Textbook Assistance
If you’re eligible for Extended Opportunity Program & Services (EOPS), you may also qualify for the Textbook Assistance Program. For more information, call the EOPS Office at (650) 949-7207.

Financial Aid Answers
The goal of the Foothill Financial Aid Office is to make college accessible to all students. We feel no one should be denied an educational experience due to lack of funds. If you have questions or want more information about financial aid options, please contact:

Financial Aid Office (in Room 8202 of Building 8200)
Foothill College
12345 El Monte Road
Los Altos Hills, CA 94022-4599
(650) 949-7245
fhfinancialaidoffice@foothill.edu
Textbooks & Supplies
You are responsible for purchasing textbooks and supplies, including course syllabi, bibliographies and other printed materials in excess of five pages. Some courses require that you purchase additional supplies. The Foothill Bookstore sells all course texts and other items.

Textbook Accessibility
Foothill College recognizes that textbook affordability directly impacts student access and successful learning. Textbook information, including the International Standard Book Number (ISBN) is included in the college’s online schedule of classes at www.foothill.edu/schedule/schedule.php as well as on the website for the college’s bookstore at books.fhda.edu. Foothill College makes every reasonable effort to determine that the textbook information listed in the online schedule is accurate, however, textbook editions and ISBNs are subject to change without notice by either the instructor or publisher. The Foothill College Bookstore is not responsible for subsequent textbook changes if the student purchases them from another source.

Textbook Options
As a student and consumer, be aware that the college offers you several options that can reduce the cost of textbooks, including the following choices. As with any consumer purchase, you are responsible for understanding the vendor’s refund/return policies.

PURCHASE USED TEXTBOOKS: The Foothill College Bookstore continues to provide a large selection of used textbooks at up to 25-percent off the new textbook price. Look for used textbooks both online and in store. Review available used titles as well as policies and restrictions at books.fhda.edu. Used textbooks may also be available at other retail bookstores;

RENT TEXTBOOKS: With a valid OwlCard, you can rent textbooks from the Foothill College Bookstore. Review available rental titles as well as policies and restrictions at books.fhda.edu;


SWAP BOOKS: Buy and sell your used books directly with other students. Listings for the student-run book exchange are free to review. Review available titles, instructions and policies at www.foothill.edu/books;

USE TEXTBOOKS THAT HAVE BEEN PLACED ON RESERVE IN THE FOOTHILL COLLEGE LIBRARY: Be aware that some books on reserve cannot be checked out. Review more library reserve instructions and policies at www.foothill.edu/library; and

SELL YOUR BOOKS DURING BOOK-BUYBACK: The Foothill College Bookstore buys back titles that instructors have requested for the following quarter at up to 50 percent of the new price. Thousands of other titles may be bought back each quarter for wholesale value, up to 40-percent cash back. Buyback operates on a first-come, first-served basis. The quantity being bought back by the Foothill College Bookstore is limited and may be reached at any time. The price paid during buyback is subject to the condition of the book and may change without notice. Review more buyback information, dates and policies at books.fhda.edu.

Additional Textbook Resources
Textbooks and course materials are now eligible for a tax credit under the American Recovery & Reinvestment Act’s (ARRA) newly created American Opportunity Tax Credit. To learn more about this option as well as how to claim the tax credit, review the IRS instructions posted online at www.textbookaid.org.
Academic Divisions
Adaptive Learning & Disability Services
(650) 949-7332

Biological & Health Sciences
(650) 949-7249

Business & Social Sciences
(650) 949-7322

Computers, Technology & Information Systems
(650) 949-7236

Counseling & Student Services
(650) 949-7296

Fine Arts & Communication
(650) 949-7262

Instructional Services & Libraries
(650) 949-7086

Language Arts
(650) 949-7250

Physical Education
(650) 949-7742

Physical Sciences, Mathematics & Engineering
(650) 949-7259

Programs of Study

Academic Divisions

Build Your Foundation:
General Education Coursework

Select a Major

Certificate Programs

Two-Year Career Programs

Curriculum Advisory Committees

Grade Requirements for Specified Career Program Courses

Professional & Technical Programs Leading to a Career Upon Completion

Apprenticeship Programs

Degrees & Certificates Offered at Foothill College
Programs of Study

Build Your Foundation:
General Education Coursework
The primary objective of general education is to provide students with the depth and breadth required to interact successfully with others as knowledgeable members of our diverse society. A general education helps students clarify and present their personal views. It should also instill values and ideas that will enrich the personal lives of students and help them understand their own abilities, feelings and motives.

At Foothill College, the general education curriculum is designed to help students understand relationships among various disciplines and appreciate and evaluate past experiences that form our cultural and physical heritage. This academic program is designed to help individuals reach their full potential as global citizens and lifelong learners.

Foothill general education requirements are described under Associate Degrees/Graduation Requirements on page 59. The Intersegmental General Education Transfer Curriculum (IGETC) for transfer from a community college to either the California State University or University of California system is listed on page 60. CSU General Education requirements are listed on page 61.

Select a Major
Selecting a college major is an important step—one that establishes your career goals and determines where you should direct your academic efforts.

Majors within career and transfer programs are described within the following pages. The chart on pages 30–34 summarizes degrees and certificates available as of Fall Quarter 2010. Consult curriculum sheets located on the Web site and available in the Counseling Center, Room 8301, for the most current degree and certificate information. You can also consult with a Foothill counselor to develop a strategy for selecting your college major. To schedule a consultation, call (650) 949-7423.

Certificate Programs
Foothill offers the following types of certificate programs:
- Career Certificate
- Certificate of Achievement
- Certificate of Completion
- Certificate of Proficiency
- Certificate of Specialization
- Skills Certificate
- Other division certificates

For information about certificates, contact the division office for unit requirements, course sequences and major requirements. Foothill awards these certificates when you satisfactorily complete certain specialized programs requiring fewer than two years of full-time study. Some certificate programs comprise (1) a complete curriculum pattern or (2) major and related courses selected from an Associate in Arts or Associate in Science degree curriculum at the recommendation of an advisory committee.

The following state requirements apply to Certificate of Achievement programs:
- A minimum of 27 units that follow a prescribed course pattern;
- A minimum GPA of 2.0 for these units;
- A maximum of 12 transfer quarter units from other institutions of higher education; and
- Proficiency in mathematics and English as evidenced by examinations or completion of college courses.

Certain Foothill College departments also offer certificates of completion, proficiency, specialization, career and skills. These certificates will not appear on the student’s transcript. General requirements include the prescribed coursework and a GPA of at least 2.0 in these courses.
More information on specific requirements is available in the division office offering the certificate or from a Foothill counselor.

Two-Year Career Programs

Associate in Arts & Associate in Science Degrees

Most professional and technical programs require two academic years of full-time enrollment and a minimum of 90 units of credit. All two-year programs lead to an Associate in Arts or Associate in Science degree. Although these programs are intended primarily to develop personal and technical competencies for employment, many four-year colleges accept the units earned in the two-year curriculum for certain lower-division requirements. We strongly recommend that you consult with a Foothill counselor to discuss degree and transfer requirements. To schedule a consultation, call (650) 949-7423.

Curriculum Advisory Committees

At Foothill, we strive to ensure that our career education curriculum meets the needs of business, industry and government. This is why we invite a number of occupational leaders to advise us on:

- new courses and course content;
- facilities and equipment;
- nature and extent of employment needs;
- how to evaluate the appropriateness of contents of existing courses; and
- how to evaluate student performance.

We constantly implement the recommendations of more than 30 occupational advisory committees. A campus advisory committee for vocational education also meets periodically to review and make recommendations for career education. For information on specific courses, consult your counselor or review the program’s curriculum sheet online at www.foothill.edu.

Grade Requirements for Specified Career Program Courses

A grade of C or better in certain career courses is required before you can enroll in the next program course:

- Biotechnology
- CTIS Division Majors
- Dental Assisting
- Dental Hygiene
- Diagnostic Medical Sonography
- Paramedic
- Pharmacy Technician
- Primary Care Associate
- Radiologic Technology
- Respiratory Therapy
- Veterinary Technology

Professional & Technical Programs Leading to a Career Upon Completion

- Accounting
- Adaptive Fitness Therapy
- Business Technology
- Child Development
- Computer Software Development
- Database & Management
- Dental Assisting
- Dental Hygiene
- Diagnostic Medical Sonography
- Enterprise Networking
- Environmental Horticulture & Design
- Geographic Information Systems
- Graphics & Interactive Design
- Help Desk/Tech Support
- Informatics
- Interactive & Multimedia Technologies
- Internet Technology
- Music Technology
- Office Administration
- Nanotechnology
- Paramedic
- Pharmacy Technician
- Photography
- Primary Care Associate
- Radio Broadcasting
- Radiologic Technology
- Real Estate
- Respiratory Therapy
- Small Business Administration
- Special Education
- Theatre Technology
- Viticulture & Enology
- Veterinary Technology

Apprenticeship Programs

Call the numbers listed for more information about apprenticeship programs.

- ELECTRICIAN/RESIDENTIAL ELECTRICIAN:
  San Jose, (408) 453-1022; San Francisco, (415) 587-2500
- ELEVATOR CONSTRUCTION: San Francisco, (415) 285-2900
- IRONWORKING: Fresno, (559) 497-1295
- PLUMBING/PIPEFITTING: Monterey, (831) 633-6312;
  Sacramento, (916) 383-1102; San Jose, (408) 453-6330
- REFRIGERATION/HEATING & AIR CONDITIONING:
  San Jose, (408) 453-6330; Sacramento, (916) 383-1102
- SHEET METAL: Castroville, (831) 633-6151; Petaluma,
  (707) 762-0181; San Francisco, (415) 431-1676; San
  Jose, (408) 263-1712; San Leandro, (510) 483-9035;
  San Mateo, (650) 652-9672
- SOUND & COMMUNICATION: San Jose, (408) 453-3101;
  San Francisco, (415) 431-5853.
### Degrees & Certificates Offered at Foothill College

Curriculum sheets describing general education and career training courses required for these programs are located in the Counseling Center in Room 8301 and online at [www.foothill.edu](http://www.foothill.edu). The Schedule of Classes lists each program alphabetically, the courses offered each quarter and the current contact phone number.

<table>
<thead>
<tr>
<th>PROGRAM</th>
<th>COMPLETION AWARD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting</td>
<td>AA, CA</td>
</tr>
<tr>
<td>Bookkeeping Specialist</td>
<td>CP</td>
</tr>
<tr>
<td>Enrolled Agent Preparation</td>
<td>CP</td>
</tr>
<tr>
<td>Financial Accounting</td>
<td>CCC</td>
</tr>
<tr>
<td>Payroll Preparation</td>
<td>CP</td>
</tr>
<tr>
<td>Tax Accounting</td>
<td>CCC</td>
</tr>
<tr>
<td>Tax Specialist</td>
<td>CP</td>
</tr>
<tr>
<td>Adaptive Aquatics</td>
<td>CCC</td>
</tr>
<tr>
<td>Adaptive Fitness Therapy</td>
<td>AA, CA</td>
</tr>
<tr>
<td>American Studies</td>
<td>AA</td>
</tr>
<tr>
<td>Anthropology</td>
<td>AA</td>
</tr>
<tr>
<td>Archaeology</td>
<td>CP</td>
</tr>
<tr>
<td>Cultural Anthropology</td>
<td>CP</td>
</tr>
<tr>
<td>Medical Anthropology</td>
<td>CP</td>
</tr>
<tr>
<td>Physical Anthropology</td>
<td>CP</td>
</tr>
<tr>
<td>Apprenticeship</td>
<td>CA, CS, CCC</td>
</tr>
<tr>
<td>Elevator Constructors</td>
<td>CCC</td>
</tr>
<tr>
<td>Pipe Trades</td>
<td>CCC</td>
</tr>
<tr>
<td>Sheetmetal</td>
<td>CA, CS, CCC</td>
</tr>
<tr>
<td>Sound &amp; Communication</td>
<td>CCC</td>
</tr>
<tr>
<td>Art-General</td>
<td>AA, CA</td>
</tr>
<tr>
<td>Ceramics</td>
<td>CS</td>
</tr>
<tr>
<td>Painting</td>
<td>CS</td>
</tr>
<tr>
<td>Two-Dimensional Art</td>
<td>CS</td>
</tr>
<tr>
<td>Art History</td>
<td>AA, CA, CS</td>
</tr>
<tr>
<td>Art-Studio</td>
<td>AA, CA</td>
</tr>
<tr>
<td>Athletic Injury Care</td>
<td>AS</td>
</tr>
<tr>
<td>Biological Sciences</td>
<td>AS</td>
</tr>
<tr>
<td>Business Administration</td>
<td>AA</td>
</tr>
<tr>
<td>Basic Financial Literacy</td>
<td>CCC</td>
</tr>
<tr>
<td>Business Management</td>
<td>CCC</td>
</tr>
<tr>
<td>Dispute Resolution</td>
<td>CS</td>
</tr>
<tr>
<td>E-Commerce &amp; Electronic Business</td>
<td>CCC</td>
</tr>
<tr>
<td>Entrepreneurship</td>
<td>CCC</td>
</tr>
<tr>
<td>Marketing</td>
<td>CCC</td>
</tr>
<tr>
<td>Small Business</td>
<td>CCC</td>
</tr>
</tbody>
</table>

**Legend**

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- **AS** Complete this program in approximately two years and earn the Associate in Science Degree. See a counselor and refer to page 59 for requirements.
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### Degrees & Certificates Offered at Foothill College

<table>
<thead>
<tr>
<th>PROGRAM</th>
<th>COMPLETION AWARD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business International Studies</td>
<td>AA, CA</td>
</tr>
<tr>
<td>International Business Strategy</td>
<td>CCC</td>
</tr>
<tr>
<td>Business Technology: Help Desk/Tech Support</td>
<td>AS, CA</td>
</tr>
<tr>
<td>A+ Preparation</td>
<td>SC</td>
</tr>
<tr>
<td>Level I</td>
<td>CCC</td>
</tr>
<tr>
<td>Level II</td>
<td>CA</td>
</tr>
<tr>
<td>Business Technology: Office Administration</td>
<td>AS, CA</td>
</tr>
<tr>
<td>Accounting/Spreadsheets</td>
<td>CA</td>
</tr>
<tr>
<td>Business Communication</td>
<td>SC</td>
</tr>
<tr>
<td>Database/SQ</td>
<td>CA</td>
</tr>
<tr>
<td>General Office</td>
<td>CA</td>
</tr>
<tr>
<td>Internet/Electronic Commerce</td>
<td>CA</td>
</tr>
<tr>
<td>Office Computing</td>
<td>CA</td>
</tr>
<tr>
<td>Word Processing/Desktop Publishing</td>
<td>CA</td>
</tr>
<tr>
<td>Chemistry</td>
<td>AS</td>
</tr>
<tr>
<td>Child Development</td>
<td>AA</td>
</tr>
<tr>
<td>Child Development Teacher</td>
<td>CA</td>
</tr>
<tr>
<td>Early Childhood Education</td>
<td>CA</td>
</tr>
<tr>
<td>Inclusion &amp; Children with Special Needs</td>
<td>CS</td>
</tr>
<tr>
<td>Infant Toddler Development</td>
<td>CS</td>
</tr>
<tr>
<td>Program Supervision &amp; Mentoring</td>
<td>CA</td>
</tr>
<tr>
<td>School-Age Child Care</td>
<td>CS</td>
</tr>
<tr>
<td>Chinese</td>
<td>AA, CS, CCC</td>
</tr>
<tr>
<td>Chinese Conversation</td>
<td>CS</td>
</tr>
<tr>
<td>Communication Studies</td>
<td>AA, CP, CS, CCC</td>
</tr>
<tr>
<td>Computer Science</td>
<td>AS</td>
</tr>
<tr>
<td>Computer Software Development</td>
<td>AS, CA</td>
</tr>
<tr>
<td>Linux/UNIX</td>
<td>SC</td>
</tr>
<tr>
<td>Linux/UNIX System Operation &amp; Administration</td>
<td>CA</td>
</tr>
<tr>
<td>Microsoft Certified Application Developer #C</td>
<td>SC</td>
</tr>
<tr>
<td>Object-Oriented Software Using C++</td>
<td>CA</td>
</tr>
<tr>
<td>Object-Oriented Software Using Java</td>
<td>CCC</td>
</tr>
<tr>
<td>Creative Writing</td>
<td>AA</td>
</tr>
<tr>
<td>Fiction</td>
<td>CS</td>
</tr>
<tr>
<td>Genres</td>
<td>CS</td>
</tr>
<tr>
<td>Poetry</td>
<td>CS</td>
</tr>
<tr>
<td>Reading &amp; Writing: Poetry</td>
<td>CS</td>
</tr>
<tr>
<td>Reading &amp; Writing: Fiction</td>
<td>CS</td>
</tr>
</tbody>
</table>

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# Degrees & Certificates Offered at Foothill College

<table>
<thead>
<tr>
<th>PROGRAM</th>
<th>COMPLETION AWARD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Database Management</td>
<td>AS</td>
</tr>
<tr>
<td>Microsoft Certified IT Professional (MCITP) Database Administration</td>
<td>SC</td>
</tr>
<tr>
<td>Open Source Database</td>
<td>CP</td>
</tr>
<tr>
<td>Oracle Database Administration</td>
<td>CA, SC</td>
</tr>
<tr>
<td>Oracle Database Developer</td>
<td>CA, SC</td>
</tr>
<tr>
<td>Dental Assisting</td>
<td>AS, CA</td>
</tr>
<tr>
<td>Dental Hygiene</td>
<td>AS</td>
</tr>
<tr>
<td>Diagnostic Medical Sonography</td>
<td>AS*, CA</td>
</tr>
<tr>
<td>Economics</td>
<td>AA</td>
</tr>
<tr>
<td>Emergency Medical Technician</td>
<td>CCC</td>
</tr>
<tr>
<td>Engineering</td>
<td>AS</td>
</tr>
<tr>
<td>English</td>
<td>AA</td>
</tr>
<tr>
<td>American Literature</td>
<td>CS</td>
</tr>
<tr>
<td>British Literature</td>
<td>CS</td>
</tr>
<tr>
<td>Linguistics</td>
<td>CS</td>
</tr>
<tr>
<td>Literary Genres</td>
<td>CS</td>
</tr>
<tr>
<td>Multicultural Literature</td>
<td>CS</td>
</tr>
<tr>
<td>Written Communication</td>
<td>CS</td>
</tr>
<tr>
<td>Enterprise Networking</td>
<td>AS</td>
</tr>
<tr>
<td>MCITP Server Administrator</td>
<td>CP</td>
</tr>
<tr>
<td>MCITP Enterprise Administrator</td>
<td>CP</td>
</tr>
<tr>
<td>Network Security</td>
<td>CP</td>
</tr>
<tr>
<td>Cisco Academy CCNA</td>
<td>CP</td>
</tr>
<tr>
<td>Cisco Academy CCNP</td>
<td>CP</td>
</tr>
<tr>
<td>Wireless Networking</td>
<td>CP</td>
</tr>
<tr>
<td>Microsoft Certified Desktop Support Technician</td>
<td>CP</td>
</tr>
<tr>
<td>Environmental Horticulture &amp; Design</td>
<td>AS, CA, SC</td>
</tr>
<tr>
<td>General Electrician</td>
<td>AS, CCC</td>
</tr>
<tr>
<td>General Studies: Humanities</td>
<td>AA</td>
</tr>
<tr>
<td>General Studies: Science</td>
<td>AS</td>
</tr>
<tr>
<td>General Studies: Social Science</td>
<td>AA</td>
</tr>
<tr>
<td>Geography</td>
<td>AA</td>
</tr>
<tr>
<td>Geographic Information Systems</td>
<td>CA, CCC</td>
</tr>
<tr>
<td>Gerontology</td>
<td>CCC</td>
</tr>
<tr>
<td>Graphic &amp; Interactive Design</td>
<td>AA, CA</td>
</tr>
<tr>
<td>Book Arts</td>
<td>SC</td>
</tr>
<tr>
<td>Garment Printing</td>
<td>SC</td>
</tr>
<tr>
<td>Graphic Design</td>
<td>SC</td>
</tr>
<tr>
<td>Illustration</td>
<td>SC</td>
</tr>
</tbody>
</table>

* Pending state approval.

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## Degrees & Certificates Offered at Foothill College

<table>
<thead>
<tr>
<th>PROGRAM</th>
<th>COMPLETION AWARD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motion Graphics</td>
<td>SC</td>
</tr>
<tr>
<td>Printmaking</td>
<td>SC</td>
</tr>
<tr>
<td>Software</td>
<td>SC</td>
</tr>
<tr>
<td>Video Design</td>
<td>SC</td>
</tr>
<tr>
<td>Web Design</td>
<td>SC</td>
</tr>
<tr>
<td>History</td>
<td>AA</td>
</tr>
<tr>
<td>Informatics</td>
<td>AS, CA, SC</td>
</tr>
<tr>
<td>Interactive &amp; Multimedia Technologies</td>
<td>AS, CA, SC</td>
</tr>
<tr>
<td>Web-Based Multimedia</td>
<td>SC</td>
</tr>
<tr>
<td>Internet Technology</td>
<td>AS, CA</td>
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<tr>
<td>AJAX</td>
<td>CP</td>
</tr>
<tr>
<td>Web-Based Multimedia</td>
<td>SC</td>
</tr>
<tr>
<td>Web Publishing: Dreamweaver</td>
<td>CP</td>
</tr>
<tr>
<td>Web Development</td>
<td>CP, SC</td>
</tr>
<tr>
<td>Electronic Business</td>
<td>SC</td>
</tr>
<tr>
<td>Japanese</td>
<td>AA, CCC</td>
</tr>
<tr>
<td>Japanese Conversation &amp; Culture</td>
<td>CS</td>
</tr>
<tr>
<td>Japanese Tutoring</td>
<td>CCC</td>
</tr>
<tr>
<td>Law &amp; Society (Pre-Law)</td>
<td>AA</td>
</tr>
<tr>
<td>Leadership &amp; Service</td>
<td>CP</td>
</tr>
<tr>
<td>Mathematics</td>
<td>AS</td>
</tr>
<tr>
<td>Music General</td>
<td>AA</td>
</tr>
<tr>
<td>Music Technology</td>
<td>AA, CA</td>
</tr>
<tr>
<td>Pro Tools</td>
<td>CA</td>
</tr>
<tr>
<td>Nanoscience</td>
<td>AS, CA</td>
</tr>
<tr>
<td>Characterization &amp; Modeling</td>
<td>CP</td>
</tr>
<tr>
<td>Nanobiotechnology</td>
<td>CP</td>
</tr>
<tr>
<td>Nanofabrication</td>
<td>CP</td>
</tr>
<tr>
<td>Non-Credit Geriatric Home Aide</td>
<td>CC</td>
</tr>
<tr>
<td>Non-Credit Job Readiness</td>
<td>CC</td>
</tr>
<tr>
<td>Non-Credit Mathematical Foundations</td>
<td>CC</td>
</tr>
<tr>
<td>Paramedic</td>
<td>AS, CA</td>
</tr>
<tr>
<td>Pharmacy Technician</td>
<td>AS, CA</td>
</tr>
<tr>
<td>Philosophy</td>
<td>AA</td>
</tr>
<tr>
<td>Photography</td>
<td>AA, CA</td>
</tr>
<tr>
<td>Digital Imaging</td>
<td>CA</td>
</tr>
<tr>
<td>Photo Criticism</td>
<td>SC</td>
</tr>
<tr>
<td>Photographic Laboratory Technician</td>
<td>SC</td>
</tr>
<tr>
<td>Traditional Photography</td>
<td>CA</td>
</tr>
<tr>
<td>Physical Education</td>
<td>AA</td>
</tr>
<tr>
<td>Physics</td>
<td>AS</td>
</tr>
</tbody>
</table>

### LEGEND

- **AA**: Complete this program in approximately two years and earn the Associate in Arts Degree. See a counselor and refer to page 59 for requirements.
- **AS**: Complete this program in approximately two years and earn the Associate in Science Degree. See a counselor and refer to page 59 for requirements.
- **CA**: Complete this program and earn the Certificate of Achievement. See division office for requirements.
- **CC**: Complete this program and earn the Certificate of Completion. Non-transcriptable. See division office for requirements.
- **CCC**: Complete this program and earn the Career Certificate. Non-transcriptable. See division office for requirements.
- **CP**: Complete this program and earn the Certificate of Proficiency. Non-transcriptable. See division office for requirements.
- **CS**: Complete this program and earn the Certificate of Specialization. Non-transcriptable. See division office for requirements.
- **SC**: Complete this program and earn the Skills Certificate. Non-transcriptable. See division office for requirements.

Review official curriculum sheets for career opportunities and course listings. Curriculum sheets are available in the division office, Counseling Center (Room 8301) and online at [www.foothill.edu](http://www.foothill.edu).
# Degrees & Certificates Offered at Foothill College

<table>
<thead>
<tr>
<th>PROGRAM</th>
<th>COMPLETION AWARD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Political Science</td>
<td>AA</td>
</tr>
<tr>
<td>Popular Culture</td>
<td>CP</td>
</tr>
<tr>
<td>Primary Care Associate</td>
<td>AS, CA</td>
</tr>
<tr>
<td>Psychology</td>
<td>AA</td>
</tr>
<tr>
<td>Radio Broadcasting</td>
<td>AA, CA, SC</td>
</tr>
<tr>
<td>Broadcast Business Sales</td>
<td>SC</td>
</tr>
<tr>
<td>Radiologic Technology</td>
<td>AS</td>
</tr>
<tr>
<td>Real Estate</td>
<td>AA, CA</td>
</tr>
<tr>
<td>Real Estate Salesperson</td>
<td>CCC</td>
</tr>
<tr>
<td>Respiratory Therapy</td>
<td>AS</td>
</tr>
<tr>
<td>Sociology</td>
<td>AA, CS</td>
</tr>
<tr>
<td>Social Welfare</td>
<td>CS</td>
</tr>
<tr>
<td>Spanish</td>
<td>AA, CS, CCC</td>
</tr>
<tr>
<td>Spanish Conversation</td>
<td>CP</td>
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<tr>
<td>Special Education</td>
<td>AA</td>
</tr>
<tr>
<td>Special Education Paraprofessional</td>
<td>CA</td>
</tr>
<tr>
<td>Theatre Arts</td>
<td>AA</td>
</tr>
<tr>
<td>Theatre Conservatory</td>
<td>CP</td>
</tr>
<tr>
<td>Theatre Technology</td>
<td>AA, CA, CCC</td>
</tr>
<tr>
<td>Transfer Studies-CSU GE</td>
<td>CA</td>
</tr>
<tr>
<td>Transfer Studies-IGETC</td>
<td>CA</td>
</tr>
<tr>
<td>Veterinary Technology</td>
<td>AS</td>
</tr>
<tr>
<td>Online Veterinary Assisting</td>
<td>CCC</td>
</tr>
<tr>
<td>Viticulture &amp; Enology</td>
<td>AS*, CA*</td>
</tr>
<tr>
<td>Vineyard Management</td>
<td>CA</td>
</tr>
<tr>
<td>Winemaking</td>
<td>CA</td>
</tr>
<tr>
<td>Women's Studies</td>
<td>AA</td>
</tr>
</tbody>
</table>

* Pending state approval.

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Academic Policies

Revision of College Policies

Admission & Enrollment Policies

General Program Requirements

General Registration Information

Residency Requirements

Unit Limitation

Academic Disqualification, Course Substitutions & Graduation Requirements

College & District Policies

Illegal Distribution of Copyrighted Materials

Misuse of Computer Information & Resources Policy

Code of Conduct for etudes™ Internet-Based Courses

Crime Awareness & Campus Security Summary Report

Student Right-to-Know Summary Report

Use of Photography
Academic Policies

Revision of College Policies
Any policy adopted by the college administration shall supersede any ruling on the same subject that appears in this catalog or in other official publications once the revised regulation is posted on a campus bulletin board or printed in the Schedule of Classes.

Admission & Enrollment Policies

Academic Prerequisites, Credit & Placement
Many courses require that you complete prerequisites in order to enroll. These prerequisites are listed under each course description in this catalog and the Schedule of Classes.

All courses listed with a prerequisite have a registration block. If you have completed a course to fulfill the prerequisite requirement at another college, you must first provide a transcript and consult with a Foothill College counselor. To schedule a consultation, call (650) 949-7423.

Before registering, you must call the Matriculation Office at (650) 949-7512 to verify you have satisfied necessary prerequisites for CHEM 1A, 1B, 25, 30A; ENGL 1A, 110; ESLL 25, 26, 226, 227, 236, 237; MATH 1A, 10, 49, 51, 101, 102, 103, 105 and 200 courses.

It is important that you call the Matriculation Office before you enroll. If you delay calling for prerequisite verification, there may not be sufficient time before registration to clear you for the class in which you want to enroll. The college has the authority to drop you from any course if you have not met the necessary prerequisites. For refund policies, contact the Admissions & Records Office in Room 8101.

If you submit written or performance evidence showing you have sufficient competence in the area of study due to previous training or experience, you may be able to enroll in a course without completing the listed prerequisites. You can only do this, however, if your counselor, instructor or division dean provides authorization.

Admission Guidelines
Foothill has an open-door admission policy for all high-school graduates and non-graduates who are 18 years of age or older. Students enrolled in the junior and senior year of high school may attend Foothill College with written parental and school permission. Forms for parental and school permission are available in the Admissions & Records Office (Room 8101), Middlefield Campus and at www.foothill.edu.

Special admission procedures such as additional testing, application forms and counseling sessions are required for admission to a number of career programs. Some of these programs begin only in the Fall Quarter. You must complete all special admission requirements in the preceding Spring Quarter. Programs in this category include dental assisting, dental hygiene, primary care associate, radiation science, diagnostic medical sonography (ultrasound), radiologic technology, respiratory therapy and veterinary technology.

Challenging Prerequisites
You may challenge prerequisites and corequisites if you can demonstrate that:
- You have the knowledge or ability to succeed in the course without the prerequisite or corequisite.
- You will be subject to undue delay in attaining your educational goal because the prerequisite or corequisite has not been made reasonably available.
- The prerequisite or corequisite is unlawfully discriminatory or is being applied in an unlawfully discriminatory manner.
- The prerequisite or corequisite has been established in an arbitrary manner.

To challenge a prerequisite, see your counselor and complete a Prerequisite Challenge Petition prior to the first day of the quarter. Advisories, when made, are listed as recommendations following prerequisites and are published in this catalog, Schedule of Classes and at www.foothill.edu. To schedule a counseling appointment, call (650) 949-7423.

Open Course Policy
It is the policy of the Foothill-De Anza Community College District that, unless specifically exempted by statute or regulation, every course, course section or class reported for state aid, 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 as may be established pursuant to regulations contained in California Administrative Code Title V commencing with Section 55200.
Enrolled Student Classifications
You are a matriculated student if you have filed an Application for Admission, enrolled at Foothill and have done one of the following:
- Submitted high school and other transcripts;
- Met with a Foothill College counselor, counseling associate or career advisor to examine educational opportunities;
- Announced an intention to study for a degree or certificate;
- Begun a series of introductory, general education or special courses; or
- Begun a series of special courses leading to a certificate or degree.

Exceptions to Admissions & Registration Policies
To request an exception to a published policy, you must file an exception petition. These forms are available in the Admissions & Records Office in Room 8101, at the Middlefield Campus Administration Building and online at www.foothill.edu.

General Program Requirements
All beginning freshmen must enroll in the CNSL 50: Introduction to College course, or demonstrate proof that they have completed an equivalent course. If you are eligible for ENGL 1A, you should complete this course by the end of the third quarter of enrollment; you may take a speech course first. If you are eligible for ENGL 110 or 100, you should complete these courses during the first or second quarter.

You may receive up to 10 quarter units of credit for each score of 5, 4 or 3 on College Entrance Board Advanced Placement Tests. Your Foothill transcript will show units but will not indicate grades. The Evaluation Office, located in the Counseling Center, Room 8301, provides information on how the advanced placement scores are marked on transcripts and the equivalencies for the University of California and California State University.

You may receive up to nine quarter units for each of five general CLEP tests completed with a score of at least 500. Your Foothill transcript will show elective unit credit for each successful test score. These units may also be used to fulfill certain general education requirements.

If you want to transfer credit from an armed services school or other special institution, you may apply through a counselor. It’s possible these credits will be accepted toward the Associate in Arts or Associate in Science degree once you have successfully completed a minimum of 15 units at Foothill.

General Registration Information
If you are a new or former student, you must submit the Application for Admission by the quarterly deadline published in the Schedule of Classes and at www.foothill.edu. We encourage you to complete the application, complete the placement testing process and submit necessary transcripts as early as possible.

Students planning to transfer to Foothill are advised to submit transcripts from high schools and colleges previously attended.

If you plan to receive veterans benefits, apply for financial aid or earn a degree or certificate, you must submit transcripts. Request previous institutions to send your transcripts directly to the Foothill College Admissions & Records Office, 12345 El Monte Road, Los Altos Hills, CA, 94022-4599.

International students on F-1 visas must follow specific admissions requirements. For more information, review www.foothill.edu/international.

To register for Foothill College classes, follow the online registration instructions published in the Schedule of Classes and on the college website at www.foothill.edu. The Schedule of Classes for the current academic year is posted online. Online information is subject to change. We encourage you to review the website frequently. For more information, call the Admissions & Records Office at (650) 949-7325.

Residency Requirements
Foothill College generally serves the communities of Palo Alto, Mountain View, Los Altos and Los Altos Hills, and our sister school, De Anza College, generally serves the cities of Cupertino and Sunnyvale. Both colleges, however, accept students from outside these cities.

If you are an out-of-state student, you are considered a non-resident until you have satisfied current California residency requirements. This rule applies to visa-holding, non-citizens eligible to establish residency. Non-resident tuition is required of all students in this category. The student who has had a change in residency, and was initially charged out-of-state fees in error, may request a refund within the academic year (prior to June 30) of the documented residency change.

If you are an international student with an F-1 visa, you are not eligible for California residency.
Unit Limitation
An average class load is 15 units per quarter. The maximum number of allowable units per quarter without a counselor’s approval is 20 units. If you intend to enroll in more than 20 units, you must obtain a counselor’s approval and submit a petition to the Academic Council. The maximum number of allowable units for Summer Session is 12 units. High school juniors and seniors are limited to enroll in no more than six units for Summer Session. To complete the petition process, schedule a consultation with a Foothill counselor by calling (650) 949-7423.

Academic Disqualification, Course Substitutions & Graduation Requirements
Make an appointment with your counselor to resolve problems such as disqualification and readmission, course substitutions, and exceptions to graduation requirements. To schedule an appointment, visit Counseling Appointments in the Counseling Center, Room 8301, or call (650) 949-7423.

Disqualification
You may be dismissed from Foothill College if you are on probation for three consecutive quarters. If you are disqualified, you will receive notice of dismissal by mail the following quarter. Dismissal will be reviewed by the Academic Council at your request. You may be readmitted after a one-quarter absence (excluding Summer Session). Consult with a Foothill counselor for readmission policies and procedures.

Academic In-Class Issues
If you have academic complaints, including treatment in a course or program, you should seek to resolve the problem by speaking with these people, in this order:
1. Course instructor;
2. Division dean (make an appointment through the division administrative assistant);
3. Division dean’s supervisor;
4. Vice president, Student Development & Instruction; Room 8104 (Room 1029 after 9/1/10); (650) 949-7228.

Academic Regulations
The Academic Council is responsible for academic regulation evaluation, enforcement, interpretation and exceptions. You can obtain petitions from the Evaluations Office in the Counseling Center, Room 8301, or call (650) 949-7231.

Academic Renewal
The academic renewal process permits students the opportunity to request the exclusion of entire quarters of coursework from the Foothill College grade point average up to a maximum of 45 units. Eligibility for academic renewal requires that you meet specific criteria. Consult your counselor for more information.

Add/Drop Date
You are responsible for initiating the drop process and for notifying both the instructor and Admissions & Records Office.

The last day to add classes without petitioning is the end of the second week of instruction. The last day to drop a class without a W grade is the end of the fourth week of the quarter for Fall, Winter and Spring quarters. Between the fifth and eighth weeks, all drops will receive a W grade. You cannot drop after the eighth week. You may receive no more than four W marks in any one course. For Summer Session class drop dates, consult the current Schedule of Classes or online college calendar at www.foothill.edu.

Probation
There are two types of probation: academic and progress probation.
- Academic probation occurs when your grade point average is below 2.0.
- Progress probation occurs when after attempting 12 units, at least half of the units received are W (withdrawal), I (incomplete) or NP (no pass).

Correcting these situations will result in removal from probation. If you’re placed on probation, you must consult a counselor for academic and procedural advice. You will be notified of probation by mail the following quarter.

Assignments & Examinations Regulations
As a Foothill student, you’re expected to do your own work on examinations and course assignments. Each instructor will enforce certain regulations to ensure honesty. If you violate these regulations, you will be dropped from the class, and the circumstances may be entered in your permanent record. Further difficulty in this respect may result in disqualification from Foothill College. See page 43 of this catalog and/or obtain the Honor Code Booklet, available from the Student Affairs & Activities Office, Room 2002.

Attendance
Regular and punctual attendance is an integral part of the learning process. As a Foothill student, you are expected to attend all scheduled classes in which you are enrolled. An instructor has the authority to drop a student who
violates written attendance policies. Instructors are not obligated to hold seats for students who are enrolled but do not attend the first class meeting.

**Audit Request Procedures**
A number of Foothill classes are available for audit. To be eligible, you must have already taken and completed the class at Foothill the number of times permitted, and received a grade of C or better. Audit requests must have the signature of the instructor before you submit the request to the Admissions & Records Office. Auditors are admitted on a space-available basis.

The audit fee is $10 per unit. If you’re currently enrolled in 10 or more units, fees for the first three audit units are waived. Approved audit requests will be accepted beginning the second week of class.

**Cancellation of Classes**
Classes may be canceled when enrollments are lower than planned. Foothill College has the authority to change or cancel courses and programs as circumstances require.

**Class Preparation/Progress**
After prior notification, an instructor may drop students who demonstrate insufficient preparation/prerequisites. In addition, any instructor may drop students who persistently neglect class assignments or demonstrate inadequate progress.

**Class Size & Frequency**
Minimum class-size guidelines apply to all lecture, lecture/lab and laboratory classes at Foothill. While a minimum class size is generally required, special circumstances may necessitate continuing a class that does not meet these guidelines.

Exceptions are based on program needs such as second-quarter, third-quarter or second-year sequential courses; courses required for an identified major or career; combined courses meeting at the same hour with the same instructor; and one-of-a-kind offerings needed for graduation or transfer. Exceptions may also be based on the following:
- Limited classroom or laboratory facilities; or
- Statutory and state regulations mandating class size, independent study, special projects and cooperative education.

Other circumstances that warrant exception are made by the Educational Resources & Instruction Office.

**Course Repetition**
Unless exceptions are specifically indicated in course descriptions in this catalog, you cannot repeat a course that you completed with a grade of C or better. State law allows students to repeat a class only once to remove a substandard grade (D, F or NP). There is no limit on the number of times the student may enroll in courses designed to meet a legally mandated training requirement as a condition of continued paid or volunteer employment. You may receive no more than four W marks in any one course.

Some Foothill College programs require that the student complete a sequential program of study without a break in attendance. When a student is enrolled in one of these programs and has a break in enrollment, he/she will be required to re-take coursework that has previously been completed with a passing grade.

**Credit by Examination (Challenge)**
As an enrolled Foothill student, you may be able to obtain credit by examination in subject matters or fields for which you are especially qualified through training or experience, but for which you have not received credit or advanced placement. Unit credits for courses successfully challenged will not be awarded until you have successfully completed 15 units of additional work at Foothill.

You can only challenge courses recommended by the division and approved by the dean. There are special limitations for challenging foreign language courses, courses that depend on laboratory or activity experiences, or courses in a sequence. You may not challenge a course at a lower level than one you have successfully completed in the same department.
The examination may include written, oral or skill tests, or a combination of all three. It will determine whether you have essentially the same knowledge and skills as students who successfully complete the course. You are not permitted to obtain credit by examination unless you are enrolled in the course and the instructor has fully informed you about the requirements for successful completion. The grade you receive on the exam will be entered on your permanent record.

No course may be challenged after the class has met for two weeks, or during Summer Session. If you have failed a course, you cannot receive credit by examination in that course. Units of credit received through this procedure may not apply toward the minimum of 24 resident units required at Foothill for the Associate in Arts or Associate in Science degrees. A maximum of 20 units of credit may be earned by examination.

Although the University of California and California State University systems accept, within certain limitations, appropriate credits obtained by examination, Foothill College cannot guarantee that other institutions will do so.

You can obtain petitions for credit from your counselor during the first week of classes. The examination will normally be completed by the end of the second week. Units earned under credit by examination will be identified on your transcript.

Transfer Credit from Another Institution
Foothill College accepts credit for lower-division coursework previously completed at a college accredited by one of the six regional accrediting associations. Students must have official transcripts sent to the Foothill College Admissions & Records Office. To be official, transcripts must be sent from college to college or hand-delivered in a sealed, unopened college envelope.

FOREIGN COLLEGES: Students who want to use coursework completed at foreign institution must have their transcripts evaluated by a foreign evaluation service. Students should meet with their counselors to petition to use any of this coursework toward the associate degree. Coursework from a foreign institution cannot be used for certification to a four-year institution. Students should contact the school to which they want to transfer to determine if any credit will be awarded from the foreign institution.

NON-REGIONALLY ACCREDITED COLLEGES: Students may petition for individual courses taken at a non-regionally accredited college to be accepted for major requirements. The credit is non-transferable toward a bachelor’s degree. Students must have official transcripts sent to the Foothill College Admissions & Records Office. To be official, transcripts must be sent from college to college or hand-delivered in a sealed, unopened college envelope.

Final Examinations
Foothill gives final examinations in all courses except physical education, CNSL 50, cooperative education and tutoring courses. We make special arrangements for self-paced courses and classes that only meet once a week. Final examinations normally will not be given in advance of the scheduled time.

You are responsible for taking all assigned final examinations. Failure to take the final examination results in an F grade. If you miss a final examination for a legitimate reason, communicate with your instructor immediately.

At Foothill, we strive to minimize student activities during the week before final examinations. However, classes and instruction continue as usual. During this period, instructors may assign coursework or have students complete part of the final examination.

Course Grading Categories
Foothill offers course grades in these five categories:
1. Courses in which all students are graded on a 4.0 scale of A, B, C, D, F.
2. Courses in which all students are graded on a Pass/No Pass (P/NP) basis.
3. You who enroll in a class as a Pass/No Pass option instead of a letter grade must submit a Pass/No Pass Card signed by the student within the first four weeks of the quarter. The form must be submitted to the Admissions Office.
   a. You may choose to apply to the associate degree no more than 16 units of P-graded courses from this category. Students transferring to a four-year school should consult with a counselor.
   b. in your major must be taken for a letter grade.
4. No grades are recorded for non-credit courses with course numbers ranging from 400–499.
5. In calculating the student’s degree-applicable grade point average, grades earned in non-degree-applicable courses shall not be included. Courses that are non-degree-applicable are noted in both the Schedule of Classes and Course Catalog.
Grading Scale
Grade definitions are as follows:

<table>
<thead>
<tr>
<th>Evaluative Symbols</th>
<th>Grade Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+*</td>
<td>Excellent 4.0; see note below</td>
</tr>
<tr>
<td>A</td>
<td>Excellent 4.0</td>
</tr>
<tr>
<td>A-</td>
<td>Excellent 3.7</td>
</tr>
<tr>
<td>B+</td>
<td>Good 3.3</td>
</tr>
<tr>
<td>B</td>
<td>Good 3.0</td>
</tr>
<tr>
<td>B-</td>
<td>Good 2.7</td>
</tr>
<tr>
<td>C+</td>
<td>Satisfactory 2.3</td>
</tr>
<tr>
<td>C</td>
<td>Satisfactory 2.0</td>
</tr>
<tr>
<td>C-**</td>
<td>See note below</td>
</tr>
<tr>
<td>D+</td>
<td>Passing, less than satisfactory 1.3</td>
</tr>
<tr>
<td>D</td>
<td>Passing, less than satisfactory 1.0</td>
</tr>
<tr>
<td>D-</td>
<td>Passing, less than satisfactory 0.7</td>
</tr>
<tr>
<td>F</td>
<td>Failing 0.0</td>
</tr>
<tr>
<td>P</td>
<td>Pass (at least satisfactory; units awarded not counted in GPA).</td>
</tr>
<tr>
<td>NP</td>
<td>No Pass (less than satisfactory, or failing; units not counted in GPA). Not attaining course objectives.</td>
</tr>
</tbody>
</table>

*In the plus/minus grading system, the A+ grade is calculated the same as the A grade.

**In the plus/minus grading system, the C- grade is not permitted under Title V law.

P and NP are assigned to those courses in which student achievement is evaluated on a pass/no pass basis rather than a letter grade (A, B, C, etc.). Pass/No Pass courses are so designated in the announcement of courses section of the catalog.

Incomplete
For a justifiable, approved reason (serious illness, emergency, etc.), you may ask your instructor for more time to complete coursework. After the end of the eighth week and before the end of the quarter, you must request that the instructor assign a grade of Incomplete (I). The instructor files an Incomplete Contract that explains the reason and precisely outlines the work due, procedure required, and due date for you to complete the work. You should sign and keep a copy of the contract.

We do not assign an incomplete because a student is slow or negligent in submitting required work. If you meet the course requirements within one calendar year, the I grade may be changed; otherwise it may be listed as F.

Withdraw from College
To withdraw from college after the eighth week, you must consult with a counselor and petition the Academic Council to obtain an approved dismissal. This is for your protection, since you may receive an F in all classes after the eighth week if you do not follow these guidelines. The petition must have the instructor’s approval signature for each class.

Transcripts
The Admissions & Records Office forwards transcripts at your request. Transcripts to educational institutions will be sent directly to those institutions. Transcripts given directly to you may be classified as unofficial.

Transcript costs and procedures for requesting transcripts are published at www.foothill.edu and in the printed Schedule of Classes.

Foothill reserves the right to withhold transcripts from students under certain circumstances, such as defaulting on a loan, outstanding balance due on an account or until all obligations to the college are cleared.

Transcript/Grade Changes
Section 76224 of the California State Education Code states, “The determination of the student’s grade by the instructor shall be final in the absence of mistake, fraud, bad faith or incompetency.” By law, instructors are the only people who can change grades.

If you believe corrections should be made within the above restriction, you should first talk to your instructor. Corrections must be initiated within two years after the grade was earned. If an error has been made, and a correction is necessary prior to the two-year period, you may request a review of the records at the Admissions & Records Office.

Grades received prior to 1983 may not be changed. Exceptions to this policy include a bona fide error in grading; and a course in which an unsatisfactory grade was given is repeated for a satisfactory grade.

High School Credits at Foothill
Although Foothill College cannot grant a high school diploma, many local high schools recommend that students who are age 19 or older complete high school requirements by taking college courses. If you choose to earn a high school diploma this way, you should obtain a statement from your high school principal or counselor indicating:

- The subjects necessary to complete graduation requirements, and the number of quarter credits in each;
- Suggestions for Foothill courses to satisfy these requirements;
- The total number of quarter credits required, including electives; and
- Acceptance of credit for courses taken at Foothill.
When you complete the college courses, request that the Foothill College registrar send a college transcript to your high school. The diploma will be issued in accordance with your school’s procedures.

All credit courses taken at Foothill count as college credit, whether or not they count toward high school requirements.

Honors Institute
If you have strong academic motivation and demonstrated potential, Foothill offers honors courses. To qualify, you must satisfy a combination of prerequisites that include grade point average and English writing skills. For details and the program application, access www.foothill.edu/hon.

The Honors Institute features courses and co-curricular activities that challenge you and help prepare you for transfer to four-year colleges and universities; registration priority to assure better access to desired classes; discussions and projects to stimulate intellectual development; complimentary tickets to cultural events; small seminars; transcript notation of honors scholar; recognition at commencement; scholarship opportunities; and other benefits. The Foothill Honors Institute is one of a select few programs at Northern California community colleges that is approved for the UCLA Preferred Admission Transfer Alliance Program. For more information, access www.foothill.edu/hon or call (650) 949-7638.

Off-Campus Trips & Activities
Some programs require off-campus field trips and activities. Transportation is usually the responsibility of the individual student or a travel agency. The district is not liable for occurrences when participants are not under a faculty or staff member’s direct, scheduled supervision.

Open-Entry/Open-Exit Classes
Foothill offers several open-entry/open-exit courses, allowing you to work at your own pace. You may generally enroll in these courses at any time, through the end of the seventh week of the quarter. Many of these courses are offered in the off-campus centers, ISC, Fine Arts and Language Arts laboratories and PSME Center. Lists of courses with unusual start times are available in these facilities and in the Schedule of Classes.

Independent/flexible study classes and cooperative work study classes are not open-entry/open-exit classes. You must enroll in these classes by the end of the second week of instruction.

Scholastic Honors
Foothill commends students who earn the associate degree, complete a minimum of 24 Foothill units and meet the following criteria by awarding:

- HIGHEST HONORS: 4.0 GPA in all Foothill College coursework.
- HIGH HONORS: at least 3.5 GPA in all Foothill College coursework.
- HONORS: at least 3.3 GPA in all Foothill College coursework.

Additional scholastic honors are awarded to eligible students on the following basis:

- DEAN’S LIST: Awarded on a quarterly basis to full-time students completing 12 or more Foothill units in one quarter with at least a 3.5 GPA; and part-time students completing a minimum of 12 cumulative units at Foothill College with an overall and quarter Foothill GPA of at least 3.5.
- PRESIDENT’S MEDAL: Awarded at the annual commencement ceremony to first-time degree recipients with a 4.0 GPA in all college coursework applicable toward the associate degree, including 60 resident units at Foothill College. To qualify for this award, the student must petition for graduation by May 1, and must attend the commencement ceremony in June.

Student Access to Education Records
The Family Education Rights & Privacy Act, also called FERPA (Section 438, Public Law 93-380), requires educational institutions to provide student access to official education records directly related to the student. The act also says you have the right to challenge such records on the grounds that they are inaccurate, misleading or otherwise inappropriate.

Your written consent is required before the college will release personal information from your records to other than a specified list of persons and agencies. These rights extend to present and former Foothill students. Education records generally include documents related to admissions, enrollment in classes, grades and related academic information. These records are filed in the Admissions & Records Office.

The registrar is the college’s designated records officer. Personal education records will be made available for inspection and review during normal business hours to currently and formerly enrolled students, within 45 days following completion and filing of a written request with the records officer.
The college may release certain types of directory information unless you notify the records officer that certain or all information cannot be released without personal consent. Directory information may include (1) student name and city of residence, (2) date and place of birth, (3) participation in recognized activities and sports, (4) dates of attendance, (5) degrees and awards received, and (6) the most recent previous educational agency or institution attended, and (7) height and weight of members of athletic teams, which may be released only by the appropriate athletic staff member or athletic director. Objection to the release of this information must be made in writing to the Admissions & Records Office prior to the first day of instruction of any quarter or Summer Session.

College & District Policies

Academic Honor Code

As a student at Foothill College, you join a community of scholars who are committed to excellence in the teaching and learning process.

We assume that students will pursue their studies with integrity and honesty; however, all students should know that incidents of academic dishonesty are taken very seriously.

When students are caught cheating or plagiarizing, a process is begun that may result in severe consequences.

It is vitally important to your academic success that you know what constitutes academic dishonesty at Foothill College.

What Is Academic Dishonesty?

The two most common kinds of academic dishonesty are cheating and plagiarism.

- Cheating is the act of obtaining or attempting to obtain credit for academic work through the use of dishonest, deceptive or fraudulent means.
- Plagiarism is representing the work of someone else as your own and submitting it for any purpose.

It is your responsibility to know what constitutes academic dishonesty. Interpretations of academic dishonesty may differ among individuals and groups. However, as a student at Foothill, you are expected to refrain from the behavior outlined herein. If you are unclear about a specific situation, speak to your instructor.

The following list exemplifies some of the activities defined as academic dishonesty:

Cheating
1. Copying, in part or in whole, from someone else’s test;
2. Submitting work presented previously in another course, if contrary to the rules of either course;
3. Altering or interfering with grading;
4. Using or consulting, during an examination, any sources, consulting others, use of electronic equipment, including cell phones and PDAs, or use of materials not authorized by the instructor; or
5. Committing other acts that defraud or misrepresent.

Plagiarism
1. Incorporating the ideas, words, sentences, paragraphs or parts of another person’s writings, without giving appropriate credit, and representing the product as your own;
2. Representing another’s artistic or scholarly works such as musical compositions, computer programs, photographs, paintings, drawings or sculptures as your own;
3. Submitting a paper purchased from a research or term paper service, including the Internet; or
4. Undocumented Web source usage.

Other Specific Examples of Academic Dishonesty
1. Purposely allowing another student to copy from your paper during a test;
2. Giving your homework, term paper or other academic work to another student to plagiarize;
3. Having another person submit any work in your name;
4. Lying to an instructor or college official to improve your grade;
5. Altering a graded work after it has been returned, then submitting the work for re-grading;
6. Stealing tests;
7. Forging signatures on drop/add cards or other college documents; or
8. Collaboration without permission of instructor.

Consequences of Academic Dishonesty

Academic and/or administrative sanctions may be applied in cases of academic dishonesty.

Academic consequences may include:
1. Receive a failing grade on the test, paper or exam;
2. Have your course grade lowered;
3. Receive a grade of F in the course;

Administrative consequences may include:
1. Be placed on disciplinary probation;
2. Be placed on disciplinary suspension; or
3. Be expelled.
The Student Affairs & Activities Office maintains a record of students who have engaged in academic dishonesty. This information is used to identify and discipline students reported for academic dishonesty more than once. A copy of the Foothill College Student Conduct, Discipline & Due Process Procedure is printed in the handbook for each of these groups, and copies are available in the Student Affairs & Activities Office in Room 2002. We thank the San Jose State University Student Affairs Vice President’s Office for many of the statements in this section. The Foothill College Academic Honor Code was developed and approved by the college’s Academic Senate in 2004.

Americans With Disabilities Act (ADA)
The Foothill-De Anza Community College District Board of Trustees uphold that, for persons with disabilities, improving the access to educational and employment opportunities must be a priority. The board directs the Foothill College administration to take the necessary actions to implement the requirements of the Americans with Disabilities Act (ADA) and Section 504 of the Rehabilitation Act.

The Foothill-De Anza Community College District shall not discriminate against a qualified individual with a disability because of the disability with regard to employment or with regard to the provision of district programs, services and activities.

A person who is otherwise qualified may request accommodation related to his/her disability, provided that accommodation does not impose an undue hardship on the district.

To receive a copy of Foothill College disability access information and procedures for requesting accommodations, call Margo Dobbins, Foothill College Disability Resource Center (DRC) coordinator at (650) 949-7332, voice; (650) 948-6025, TDD. Disability access information is also available in the DRC, located in Room 5801; or in the Foothill College President’s Office in the Administration Building.

To appeal a DRC accommodation decision, schedule a meeting with Vice President of Student Development & Instruction Rose Myers, the institution’s ADA/504 coordinator, by visiting Room 8104 (Room 1920 after 9/1/10) or calling (650) 949-7228.

Non-Discrimination Policy
Foothill does not discriminate against any person in the provision of any program or service based on race, color, national or ethnic origin, age, gender, religion, sexual orientation, marital status or physical/mental disability.

Complaints of discrimination filed by an employee of the district against another employee or student, or a student against an employee of the district shall be referred and handled pursuant to the district Administrative Procedures: Resolve Complaints-Harassment & Discrimination (AP 4640). Such complaints should be directed to Foothill’s dean of Student Affairs & Activities, located in Room 2002; or call (650) 949-7241 to schedule an appointment.

Complaints of discrimination filed by a student against another student, or student against the criteria of a program, shall also be referred and handled pursuant to the district Administrative Procedures: Resolve Complaints-Harassment & Discrimination (AP 4640). Such complaints should be directed to Foothill’s dean of Student Affairs & Activities, located in Room 2002; or call (650) 949-7241 to schedule an appointment.

To report discrimination on the basis of disability, schedule a meeting with Vice President of Student Development & Instruction Rose Myers, the institution’s ADA/504 coordinator, by visiting Room 8104 (Room 1920 after 9/1/10) or calling (650) 949-7228.

Limited English Skills Policy
Prospective students are advised that a lack of English language skills will not be a barrier to admission to, or participation in vocational education programs at Foothill College as long as other, if any, program admission standards are met.

This notice is a requirement of the Guidelines for Eliminating Discrimination & Denial of Services on the Basis of Race, Color, National Origin, Sex & Handicap (Federal Register; Vol. 44, No 56).

Reglamento sobre Limitaciones en el Idioma Inglés
Se les aconseja a posibles estudiantes que la carencia del idioma Inglés no será una barrera para la admisión, o participación en programas de educación vocacional en Foothill College, siempre y cuando todos los otros, si existieran, criterios de admisión del programa sean completados.

Esta nota es un requisito de la Guía para la Eliminación de la Discriminación y Rechazo de Servicios en Base a la Raza, Color, Nacionalidad de Origen, Sexo e Impedimento (Registro Federal; Vol. 44, No. 56).

Reglamento de la No-Discriminación
Foothill College no discrimina en contra de ninguna persona en la prohibición de algún programa o servicio basado en la raza, color, nacionalidad u origen ético, edad, sexo, religión, orientación sexual, estado civil, o impedimento físico o mental.
Sexual Harassment Protection Policy

Members of a college community—students, faculty, staff and visitors—must be able to study and work in an atmosphere of mutual respect and trust. It is the policy of the Foothill-De Anza Community College District to provide an educational, employment and business environment free of unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct or communications constituting sexual harassment, as defined and otherwise prohibited by federal and state law.

Sexual harassment may include, but is not limited to:
- Conduct of a sexual nature that is explicitly or implicitly made a term or condition of an individual’s employment or education;
- A decision based on the submission to or rejection of a sexual advance; or
- Verbal or physical conduct of a sexual nature that interferes with an individual’s performance or creates an intimidating work or educational environment.

Immediate action shall be taken against individuals determined to be in violation of this policy. Any individual who believes that he or she has been a victim of sexual harassment may file a complaint within one year of the date on which the complainant knew or should have known of the facts of the sexual harassment incident.

Complaints of sexual harassment filed by an employee of the district against another employee or student, or a student against an employee of the district, shall be referred and handled pursuant to the district’s Administrative Procedures: Resolve Complaints-Harassment & Discrimination (AP 4640). Such complaints should be directed to Vice President of Student Development & Instruction Rose Myers in Room 8104 (Room 1920 after 9/1/10), or call (650) 949-7228.

Complaints of sexual harassment filed by a student against another student, or student against the criteria of a program, shall be referred and handled pursuant to the district’s Procedures to Resolve Student Complaints of Sexual Harassment & Discrimination. Such complaints should be directed to Vice President of Student Development & Instruction Rose Myers in Room 8104 (Room 1920 after 9/1/10), or call (650) 949-7228.

Title IX Procedural Requirements

Title IX is a comprehensive federal law that prohibits discrimination on the basis of sex in any federally funded education program or activity. In addition to traditional educational institutions, Title IX also applies to any education or training program operated by a recipient of federal financial assistance. Many of these education programs became subject to Title IX regulations in 2000. Foothill College has responsibilities to ensure that students and employees comply with the non-discrimination mandate of Title IX and its procedural requirements. Foothill College has established a method for receiving and resolving sex-based discrimination complaints. At Foothill College, the vice president of Instruction & Institutional Research is the institution’s designated Title IX coordinator. For information, call (650) 949-7209 or visit Room 1954.

Mutual Respect Policy

Foothill College takes all steps necessary to provide a positive educational and employment environment that encourages equal educational opportunities. The college actively seeks to educate staff and students on the deleterious effects of expressions of hatred or contempt based on race, color, national or ethnic origin, age, gender, religion, sexual orientation, or physical or mental disability; and promotes equality and mutual respect among all groups and individuals. Standards of conduct for students and the applicable sanctions for violating the standards of student conduct are contained in the Academic Policies section in the Course Catalog, Schedule of Classes and Student Handbook. The handbook is available from the Student Activities Office, Room 2009.

Decisions regarding discipline of employees will be made in accordance with applicable legal and contractual provisions and procedures, and may range from reprimand to dismissal.

Complaints & Grievance Process

Foothill College has an established procedure for grievances and complaints in order to provide a means for resolving alleged unfair or improper action by any member of the academic community. Procedures and forms are available on campus in the Student Affairs & Activities Office, located in Room 2002. A copy of the Foothill-De Anza Community College District (FHDA) Board Policy & Administrative Procedures is available for review from the FHDA District Human Resources Office as well as online at www.fhda.edu/about_us/board/policy. For more information, visit the Student Affairs & Activities Office or call (650) 949-7241.

Drug-Free Campus Policy

The unlawful possession, use or distribution of any illicit drug or alcohol by students on district property or at district activities or events is prohibited.

The use of drugs and alcohol may pose significant health risks. The Psychological Services and Health Services offices at Foothill College offer additional information on the risks associated with the use of drugs and alcohol. You can also receive referral information for drug or alcohol counseling, treatment and rehabilitation programs. For more information, call (650) 949-7243.
Employees and students may be suspended or expelled for the unlawful possession, use or distribution of illicit drugs or alcohol. Appropriate disciplinary action may also include requiring the completion of a rehabilitation program. The standards of conduct for students and the applicable sanctions for violating the standards are published in the Foothill Student Handbook and Board Policy #4500.

No-Smoking Policy

To provide a safe learning and working environment for students and employees, smoking is prohibited in all indoor and outdoor campus locations, with the exception of designated parking lots. Smoking is prohibited in district vehicles.

This policy relies on the consideration and cooperation of smokers and non-smokers. It is the responsibility of all members of the district to observe and follow the guidelines. This policy shall be communicated to all employees annually and published in the colleges’ Schedule of Classes, handbooks, websites, and other appropriate locations. (Santa Clara County Ordinance No. 625.4; City of Cupertino Ordinance No. 1647; Labor Code 6404.5; Approved 1/8/96; Amended 8/16/99, 12/2/02, 6/20/05)

The Foothill College Health Services Office provides a variety of smoking cessation aids. To learn more about these services, visit the Health Center in Room 2126 or call (650) 949-7243.

Parking Citations & Traffic Violations

Parking tickets and traffic violations issued at Foothill College by district police are legal citations that cannot be canceled by the college administration. To make a payment or contest a parking citation, write to Parking Violations, P.O. Box 1113, San Jose, CA 95108-1113; or call (800) 818-1832. To make a payment or contest a citation for a traffic violation, write to the Palo Alto Superior Court, 270 Grant Avenue, Palo Alto, CA 94306-1911; or call (650) 324-0373.

Police Conduct

Direct concerns about an individual officer first to the officer and then to the chief of police, located in Room 2103; or call (650) 949-7313.

Student Grievance Procedures

So that you are fully aware of student rights and responsibilities, you should also review the Foothill College Student Conduct & Due Process Booklet. The administrative and board policies referred to in this section are also available online at www.fhda.edu. Printed versions of both booklets are available in the Student Affairs & Activities Office in Room 2002 and the Foothill-De Anza Community College District Chancellor’s Office located on the Foothill College campus.

Purpose

The purpose of this procedure is to provide a prompt and equitable means of resolving student grievances. This procedure is for student grievances only. Faculty and staff with complaints regarding students should refer to Administrative Procedure 5510: Student Code of Conduct and Administrative Procedure 5520: Student Due Process & Discipline. The student grievance procedures shall be available to any student who reasonably believes a college decision or action has adversely affected his or her status, rights or privileges as a student. The procedures shall include grievances regarding:

- Course grades, to the extent permitted by Education Code Section 76224(a), which provides: “When grades are given for any course of instruction taught in a community college district, the grade given to each student shall be the grade determined by the instructor of the course and the determination of the student’s grade by the instructor, in the absence of mistake, fraud, bad faith, or incompetence, shall be final.”
- Act or threat of intimidation or harassment. These procedures do not apply to sexual harassment or illegal discrimination. Sexual harassment or complaints on the basis of race, color, national or ethnic origin, age, gender, sexual orientation, marital status, or physical or mental disability should be directed to the dean of Student Affairs & Activities at Foothill College, the dean of Student Development & EOPS at De Anza College or the Foothill-De Anza Community College District Human Resources Office.
- Act or threat of physical aggression.
- Arbitrary action or imposition of sanctions without proper regard to academic due process specified in the college procedures, unrelated to disciplinary actions.
- The exercise of rights of free expression protected by state and federal constitutions and Education Code Section 76120.

This procedure does not apply to:

- Student disciplinary actions, which are covered under separate board policies and administrative procedures. (See Administrative Procedure 5520: Student Due Process & Discipline.)
- Police citations (i.e. “tickets”). Complaints about citations must be directed to the Santa Clara County Superior Court Parking Violations Office in the same way as any traffic violation.
- Sexual harassment. Complaints of sexual harassment should be directed to the dean of Student Affairs & Activities at Foothill College or the dean of Student Development & EOPS at De Anza College.
Illegal discrimination. Complaints of discrimination on the basis of race, color, national or ethnic origin, age, gender, sexual orientation, marital status, or physical or mental disability filed against an employee of the district should be directed to the dean of Student Affairs & Activities at Foothill College or the dean of Student Development & EOPS at De Anza College.

Residence determination. Student should contact the associate registrar at Foothill College or the director of Admissions & Records at De Anza College.

Dismissal from college for academic reasons. Student should consult a Foothill counselor. If there are extenuating circumstances, the student may appeal the dismissal to the Academic Council after consulting a Foothill counselor.

**Definitions**

**GRIEVANT:** A student alleging that a college decision or action has adversely affected his or her status, rights or privileges as a student, or alleges that another student has violated the student’s rights.

**PARTY:** The student, or any persons claimed to have been responsible for the student’s alleged grievance, together with their representatives. “Party” shall not include the grievance hearing committee or the college grievance officer.

**PRESIDENT:** The college president or a designated representative of the college president.

**STUDENT:** A currently enrolled student, a person who has filed an application for admission to the college, or a former student. A grievance by an applicant shall be limited to a complaint regarding denial of admission.

**RESPONDENT:** Any person claimed by a grievant to be responsible for the alleged grievance.

**WORK DAY:** A work day shall mean days during which the district is in session and regular classes are held, excluding Saturdays and Sundays. All time deadlines shall be measured by work day, unless otherwise specified as calendar days.

**Informal Resolution of Grievances**

Each student who has a grievance shall make a reasonable effort to resolve the matter on an informal basis prior to requesting a grievance hearing, and shall attempt to solve the problem with the person with whom the student has the grievance, that person’s immediate supervisor, or the vice president who oversees that division.

The college president has appointed an employee who shall assist students in seeking resolution by informal means. This person shall be called the grievance officer.

Informal meetings and discussion between persons directly involved in a grievance are essential at the outset of a dispute and should be encouraged at all stages. An equitable solution should be sought before persons directly involved in the case have stated official or public positions that might tend to polarize the dispute and render a solution more difficult. At no time shall any of the persons directly or indirectly involved in the case use the fact of such informal discussion, the fact that a grievance has been filed, or the character of the informal discussion for the purpose of strengthening the case for or against persons directly involved in the dispute or for any purpose other than the settlement of the grievance.

Any student who believes he or she has a grievance shall file a **Statement of Grievance Form** with the grievance officer within 30 calendar days of the incident on which the grievance is based, or 30 calendar days after the student could have reasonably discovered the basis for the grievance, whichever is later. The **Statement of Grievance Form** must be filed whether or not the student has already initiated efforts at informal resolution, if the student wishes the grievance to become official. Within two work days following receipt of the **Statement of Grievance Form**, the grievance officer shall advise the student of his or her rights and responsibilities under these procedures, and assist the student, if necessary, in the final preparation of the **Statement of Grievance Form**.

If at the end of 10 work days following the student’s first meeting with the grievance officer, there is no informal resolution of the complaint which is satisfactory to the student, the student shall have the right to request a grievance hearing.

**Steps in the Informal Process Involving College Employees**

1. The student shall confer with the faculty member, administrator or classified staff person directly involved in the facts giving rise to the grievance.
2. If unresolved after Step 1, the student shall confer with the faculty member’s division dean, or the supervisor of the administrator or classified staff person.
3. If unresolved after Step 2, the student shall confer with the vice president of that dean’s or supervisor’s division.

4. Within the 30-calendar-day time limit as previously outlined, if the student does not feel that the matter can be resolved after completing Steps 1, 2 and 3, an official **Statement of Grievance Form** may be filed with the grievance officer. The grievance officer will advise the student of his/her rights and assist the student, if necessary, in the final preparation of the **Statement of Grievance Form**.
5. If after 10 work days from the first meeting with the grievance officer there is no informal resolution, the student may request a grievance hearing.

If the complaint involves a grievance against another student, grievant shall confer directly with the grievance officer, who will advise the grievant of his/her rights and assist the grievant in preparing the Statement of Grievance Form.

**Formal Grievance Process**

**Grievance Hearing Committee**
- The college president or his/her designee shall at the beginning of each quarter, including any summer session, establish a standing panel of members of the college community, including faculty members and administrators, from which one or more grievance hearing committees may be appointed. The panel will be established with the advice and assistance of the Academic Senate, who shall submit names to the president or his/her designee for inclusion on the panel. A grievance hearing committee shall include three members from the panel described above. The administrator on the hearing panel shall serve as chair.
- No person shall serve as a member of a grievance hearing committee if that person has been personally involved in any matter giving rise to the grievance, has made any statement on the matters at issue, or could otherwise not act in a neutral manner.
- The grievance officer shall sit with the grievance hearing committee but shall not serve as a member nor vote. The grievance officer shall coordinate all scheduling of hearings, shall serve to assist all parties and the hearing committee to facilitate a full, fair and efficient resolution of the grievance, and shall avoid an adversary role.

**Request for Grievance Hearing**
Any request for a grievance hearing shall be filed on a Request for a Grievance Hearing Form in writing within 30 calendar days after discovery of the grievable action and after completing steps 1–3 of the informal process previously outlined.
- Within 10 work days following receipt of the Request for Grievance Hearing Form, the grievance officer shall convene a grievance hearing committee as described above, and the grievance hearing committee shall meet in private and without the parties present to determine on the basis of the Statement of Grievance whether it presents sufficient grounds for a hearing.
- The determination that the Statement of Grievance presents sufficient grounds for a hearing shall be made if the following are found to be true:

1. The statement contains facts, which, if true, would constitute a grievance under these procedures;
2. The grievant is a student as defined in these procedures, which include applicants and former students;
3. The grievant is personally and directly affected by the alleged grievance;
4. The grievance was filed in a timely manner
5. The grievance is not clearly frivolous, clearly without foundation, or clearly filed for purposes of harassment.

If the grievance does not meet each of the requirements, the hearing committee chair shall notify the student in writing of the rejection of the Request for a Grievance Hearing, together with the specific reasons for the rejection and the procedures for appeal. This notice will be provided within seven work days of the date the decision is made by the grievance hearing committee.
- If the Request for Grievance Hearing satisfies each of the requirements, the college grievance officer shall schedule a grievance hearing. The hearing will begin within 30 calendar days following the decision to grant a grievance hearing. All parties to the grievance shall be given not less than 10 work days notice of the date, time and place of the hearing.

**Hearing Procedure**
The grievance hearing committee chair is responsible for making sure that administrative procedures are followed and for maintaining decorum at the hearing.
- The members of the grievance hearing committee shall be provided with a copy of the grievance and any written response provided by the respondent before the hearing begins.
- party to the grievance may call witnesses and introduce oral and written testimony relevant to the issues of the matter.
- Formal rules of evidence shall not apply. Any relevant evidence shall be admitted.
- Unless the grievance hearing committee determines to proceed otherwise, each party to the grievance shall be permitted to make an opening statement. Thereafter, the grievant or grievants shall make the first presentation, followed by the respondent or respondents. The grievant(s) may present rebuttal evidence after the respondent(s)’ evidence. The burden shall be on the grievant or grievants to prove by substantial evidence that the facts alleged are true and that a grievance has been established as specified above.
- Each party to the grievance may represent himself or herself, and may also have the right to be represented by a person of his or her choice; except that a party
The grievance hearing committee shall prepare and send a decision to the grievant. The decision shall include specific conclusions regarding whether a grievance has been established as defined above. The decision shall also request legal assistance; any legal advisor provided to the hearing committee may sit with it in an advisory capacity to provide legal counsel but shall not be a member of the panel nor vote with it.

- Hearings shall be closed and confidential unless all parties request that it be open to the public. Any such request must be made no less than five work days prior to the date of the hearing. In a closed hearing, witnesses shall not be present at the hearing when not testifying, unless all parties and the committee agree to the contrary.

- The hearing shall be recorded by the grievance officer either by tape recording or stenographic recording, and shall be the only recording made. No witness who refuses to be recorded may be permitted to give testimony. In the event the recording is by tape recording, the grievance hearing committee chair shall, at the beginning of the hearing, ask each person present to identify themselves by name, and thereafter shall ask witnesses to identify themselves by name. The tape recording shall remain in the custody of the district, either at the college or the district office, at all times, unless released to a professional transcribing service. Any party may request a copy of the tape recording.

- All testimony shall be taken under oath; the oath shall be administered by the grievance hearing committee chair. Written statements of witnesses under penalty of perjury shall not be used unless the witness is unavailable to testify. A witness who refuses to be tape-recorded shall be considered to be unavailable.

- The grievance hearing committee shall prepare and send a decision to the grievance officer. The decision will be forwarded by the grievance officer to the grievant within 14 work days. The decision shall include specific factual findings regarding the grievance, and shall include specific conclusions regarding whether a grievance has been established as defined above. The decision shall also include a specific recommendation regarding the relief to be afforded the grievant, if any. The decision shall be based only on the record of the hearing, and not on matter outside of that record. The record consists of the original grievance, any written response, and the oral and written evidence produced at the hearing.

### Appeal & President’s Decision
A student prejudiced by a decision of the grievance hearing committee shall be entitled to appeal that decision to the college president. The appeal shall be made in writing to the college president within 30 calendar days of receipt of the grievance hearing committee’s decision. The college president shall review the appeal and the grievance hearing committee’s findings and conclusions, and will render a decision. Within seven work days following the receipt of the request for appeal, the college president shall prepare and send a decision to the grievant. The decision of the college president shall be final.

### Time Limits
Any times specified in these procedures may be shortened or lengthened if there is mutual concurrence by all parties.

### Illegal Distribution of Copyrighted Materials
Foothill College students are prohibited from using the Foothill-De Anza (FHDA) Community College District information network to illegally download or share music, video and all other copyrighted intellectual property. Foothill College supports the Higher Education Opportunity Act and Digital Millennium Copyright Act, including efforts to eliminate the illegal distribution of copyrighted material. Under the law, college administrators may be obligated to provide copyright holders with information about users of the FHDA information network who have violated the law.

Be aware that illegal forms of downloading and file sharing as well as the unauthorized distribution of copyrighted materials are violations of the law and may subject you to academic sanctions from the college as well as criminal and civil penalties, including a lawsuit against you by the Recording Industry Association of America (RIAA). Learn more at [www.campusdownloading.com](http://www.campusdownloading.com).

In addition to being illegal, file sharing drains the FHDA network’s bandwidth, which slows computer connections for students and employees who are using the network for legitimate academic purposes and ultimately costs the college money.

The college has developed policies and consequences to ensure that students respect music and other forms of intellectual property as well as conduct responsible use of the Internet. Review these policies at [www.foothill.fhda.edu/services/studentright.php#misuse](http://www.foothill.fhda.edu/services/studentright.php#misuse).

There are plenty of easy, affordable ways to get music online legally. To protect their intellectual property, companies have licensed hundreds of digital partners that offer a range of legal downloading options, including download and subscription services, legitimate peer-to-peer
services, video-on-demand, podcasts and CD kiosks. For a list of sources that offer legal downloading sites, access www.riaa.com.

Summary of Civil & Criminal Penalties for Violation of Federal Copyright Laws
Copyright infringement is the act of exercising, without permission or legal authority, one or more of the exclusive rights granted to the copyright owner under the Copyright Act. These rights include the right to reproduce or distribute a copyrighted work. In the file-sharing context, downloading and/or uploading substantial parts of a copyrighted work without authority constitutes an infringement. For details, review U.S. Code Title 17; Section 106.

Civil and criminal penalties are applicable for copyright infringement. In general, anyone found liable for civil copyright infringement may be ordered to pay either actual damages or statutory damages affixed at not less than $750 and not more than $30,000 per work infringed. For willful infringement, a court may award up to $150,000 per work infringed. A court can also assess related costs and attorneys’ fees. Willful copyright infringement can also result in criminal penalties, including imprisonment of up to five years and fines of up to $250,000 per offense. For details, review U.S. Code Title 17; Sections 504–505.

For more information, review the U.S. Copyright Office website at www.copyright.gov, especially the FAQ at www.copyright.gov/help/faq.

Misuse of Computer Information & Resources Policy
This administrative procedure implements FHDA Board Policy 3250: Procedures Regarding Misuse of Computer Information.

Abuse of computing, networking or information resources contained in or part of the district network may result in the loss of computing privileges. Additionally, abuse can be prosecuted under applicable statues. Users may be held accountable for their conduct under any applicable district or college policies, procedures, or collective bargaining agreements. Complaints alleging abuse of the district network will be directed to those responsible for taking appropriate disciplinary action. Illegal reproduction of material protected by U.S. Copyright Law is subject to civil damages and criminal penalties, including fines and imprisonment.

Examples of behaviors constituting abuse which violate District Board Policy 3250 include, but are not limited to, the following activities:

System Abuse
- Using a computer account that one is not authorized to use.
- Obtaining a password for a computer account that one is not authorized to have.
- Using the district network to gain unauthorized access to any computer systems.
- Knowingly performing an act which will interfere with the normal operation of computers, terminals, peripherals or networks.
- Knowingly running or installing on any computer system or network, or giving to another user, a program intended to damage or to place excessive load on a computer system or network. This includes but is not limited to programs known as computer viruses, Trojan horses and worms.
- Knowingly or carelessly allowing someone else to use your account who engages in any misuse in violation of District Board Policy 3250.
- Forging e-mail messages.
- Attempting to circumvent data-protection schemes or uncover or exploit security loopholes.
- Masking the identity of an account or machine.
- Deliberately wasting computing resources.
- Downloading, displaying uploading or transmitting obscenity or pornography, as legally defined.
- Attempting without district authorization to monitor or tamper with another user’s electronic communications, or changing, or deleting another user’s files or software without the explicit agreement of the owner, or any activity which is illegal under California computer crime laws.
- Personal use which is excessive or interferes with the user’s or others’ performance of job duties, or otherwise burdens the intended use of the district network.

Harassment
- Using the telephone, e-mail or voice mail to harass or threaten others.
- Knowingly downloading, displaying or transmitting by use of the district network, communications, pictures, drawings or depictions that contain ethnic slurs, racial epithets, or anything that may be construed as harassment or disparagement of others based on their race, national origin, gender, sexual orientation, age, disability, or religious or political belief.
- Knowingly downloading, displaying or transmitting by use of the district network sexually explicit images, messages, pictures, or cartoons when done to harass or for the purposes of harassment.
Knowingly downloading, displaying or transmitting by use of the district network sexually harassing images or text in a public computer facility, or location that can potentially be in view of other individuals.

Posting on electronic bulletin boards material that violates existing laws or the colleges' codes of conduct.

Using the district network to publish false or defamatory information about another person.

**Commercial Use**

- Using the district network for any commercial activity without written authorization from the district. "Commercial activity" means for financial remuneration or designed to lead to financial remuneration.

**Copyright**

- Violating terms of applicable software licensing agreements or copyright laws.
- Publishing copyrighted material without the consent of the owner on district Web sites in violation of copyright laws.

**Exceptions**

Activities by technical staff, as authorized by appropriate district or college officials, to take action for security, enforcement, technical support, troubleshooting or performance testing purposes will not be considered abuse of the network.

Although personal use is not an intended use, the district recognizes that the network will be used for incidental personal activities and will take no disciplinary action provided that such use is within reason and provided that such usage is ordinarily on an employee's own time; is occasional; and does not interfere with or burden the district's operation. Likewise, the district will not purposefully monitor or punish reasonable use of the network for union business-related communication between employees and their unions Approved 11/17/97; Reviewed by FHDA Board 8/16/99, 7/7/03.

All Foothill College students are subject to the same consequences for violations of college policy. They include sanctions and consequences for infractions that are outlined in the student handbook, Course Catalog and at www.foothill.edu under Student Rights & Responsibilities.

All Foothill College students are hereby notified that these documents, available online and in print, serve to alert them to their rights and responsibilities, and the college's obligations.

There are specific requirements of students using etude software, or other commercial software, and they are detailed in the Terms of Service Agreement. All students are advised to refer to this document and are informed that violations may result in suspension and/or expulsion from the class and/or college, other board sanctions and termination of your password, account or use of the software. The Terms of Service Agreement include the college's limitation of liability, indemnification, waivers, intellectual property rights, confidentiality and registration information.

Referenced sources include Beyond the Classroom: Foothill College Student Handbook & Planner, Student Rights & Responsibilities; Foothill College Academic Honor Code; Foothill-De Anza Community College District Policies & Administrative Procedures on Sexual Harassment & Discrimination; and etudes systems™ Terms of Service-Agreement (www.courseserve.com/termsofservice.html). March 1, 2000.

Students can obtain a copy of Student Conduct & Due Process from the Student Affairs & Activities Office, Room 2002; (650) 949-7241.
Crime Awareness & Campus Security Summary Report

In compliance with Section 201 Public Law 101-542 as amended by Public Law 102-26, Foothill College provides the following Crime Awareness & Campus Security Act Summary Report for students, faculty and staff:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Aggravated Assault</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Arson</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Burglary</td>
<td>2</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>Homicide</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Vehicle Theft</td>
<td>1</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Rape</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Robbery</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Arrestd Year</th>
<th>2009</th>
<th>2008</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol Violations</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Drug Violations</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Warrants/Other</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

Student Right-to-Know Summary Report

In compliance with the federal government, Foothill College provides the following summary of first-time, full-time, degree-seeking students entering Foothill College in Fall Quarter 2006:

- Students completing A.A./A.S./Certificate: . . . . . 47.67 percent
- Students who transferred out: . . . . . . . . . . . 20.50 percent
- Total completers/transfers: . . . . . . . . . . . . . 68.17 percent

Use of Photography

Foothill College, a non-profit California community college, reserves the right to use photographs, motion pictures and electronic images of students and visitors, age 18 and older, taken on college property and at college-sponsored events, for marketing and promotional purposes.

Occasionally, the college will conduct media production activities for marketing purposes. The results of such photography and recording may be broadcast throughout the world. If you do not wish to be identified, photographed or recorded, please avoid areas where camera technicians and photographers are working.

Objection to the use of an individual’s photograph may be made in writing to the Marketing Office, Room 5931.

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1 The cohort is made up of students entering college for the first time in the fall term, who in the fall term declared a goal of transfer, associate degree or certificate and completed one or more college-level credit courses in the fall term.

2 The term transferred out is defined as the student who transferred to a University of California campus, or California State University campus, or another California community college campus.

3 Completers are students who within a degree-year period completed the requirements for an associate degree, certificate, or transferred out of the college, or were prepared to transfer which is defined as successfully completing 84 or more transferable units and achieving a grade point average equal to or greater than 2.0 (out of a possible 4.0).
“After high school, I didn’t know which four-year university I wanted to attend or what major I wanted to study. I enrolled at Foothill College, and little did I know that my decision was the turning point of my life. “I worked hard, stayed focused and was rewarded with unimaginable opportunities. I met my future wife at Foothill, transferred to and graduated from Santa Clara University’s prestigious business school, had a wonderful career in consulting, strategic planning, management and marketing. And, I retired at age 40! “Foothill has a unique portfolio of caring and challenging teachers, great class sizes, and comprehensive financial aid and counseling resources. Reach out and take advantage of these incredible assets and you’ll be greeted by options and opportunities that you too couldn’t have imagined.”

—William Yee, B.S., transferred from Foothill College to Santa Clara University. His most recent —and last— job was at Yahoo!

Requirements

A.A./A.S. Degree Graduation Requirements

General Education Reciprocity

Transfer Studies Preparation Degree

Petition for Graduation

Catalog Rights/Requirements for Graduation

Continuous Enrollment

Currency of Major/Certificate Requirements

Online Degrees

Discontinued Degrees

Course Numbering System

Certification of General Education for Transfer

Four-Year Institution Requirements

Preparation for Transfer to Four-Year Colleges & Universities

Transfer to the California State University

Transfer to the University of California

Oversubscribed Programs

Minimum Admission Requirements

Priority Application Filing Period

A.A./A.S. Degree & General Education Requirements

Intersegmental General Education Transfer Curriculum (IGETC)

California State University General Education Breadth Requirements

Major & Certificate Requirements
Requirements

Associate in Arts & Associate in Science Degree Graduation Requirements
Requirements for the Associate in Arts and Associate in Science degrees are listed on page 59 and include completion of all the following:
- A minimum of 90 units in prescribed courses;
- A minimum of 24 units taken at Foothill College;
- A GPA of 2.0 or better in all college courses including Foothill courses;
- A major of at least 27 units in a curriculum approved by the Foothill College Curriculum Committee;
- The general education requirements are listed in the charts on pages 59–60. If you plan to transfer to a four-year college or university, you should also review the specific requirements of those institutions;
- English Proficiency: ENGL 1A or ESLL 26;
- Math Proficiency: MATH 105; and
- The student may apply only one English or ESLL course below transferable freshman composition toward the associate degree.

One course is required from Area I through Area VI. Two courses (a minimum of four units from two disciplines) are required in Area VII. Courses may only be used in one area.

General Education Reciprocity
The Foothill-De Anza Community College District has entered into a mutual General Education (GE) Reciprocity Agreement with other community colleges to accept the general education courses of these colleges “as completed.” In addition to Foothill, participating institutions include De Anza, Evergreen Valley, Gavilan, Mission, Ohlone, San Jose City and West Valley colleges. Other community colleges do not participate in the agreement at this time.

The reciprocity agreement allows students who obtain a certification of completion of associate degree GE requirements at one of the participating colleges to transfer both the GE coursework and graduation proficiencies to any of the other participating colleges. Additional GE coursework will not be required if the official certification is presented. Students will still be required to complete all courses or prerequisites needed for a major. The agreement also means that the other participating colleges will accept the Foothill GE pattern when presented with official certification.

Students seeking an official general education certification for use by a reciprocity institution are encouraged to review their records with a counselor prior to submitting the General Education Certification Request. Students who have completed courses at other colleges and universities must have official transcripts on file prior to submitting the request. Requests for AA/AS general education certification may be submitted to the Evaluations Office in Room 8301.

Transfer Studies Preparation Degree
Foothill’s associate degree for individual transfer preparation offers maximum flexibility for students who intend to transfer to a four-year college or university. Completion of this degree does not guarantee complete satisfaction of general education and lower-division major preparation for all majors. Review specific degree requirements on pages 107–108 or www.foothill.edu.

For more information, consult a Foothill College counselor. To schedule a counseling appointment, call (650) 949-7243.

Petition for Graduation
Upon completion of required coursework, you may request to receive the Associate in Arts or Associate in Science degree from Foothill College. You must complete a petition for graduation. The petition should be filed no later than the beginning of the quarter during which you plan to complete graduation requirements. Foothill confers degrees every quarter, and the annual commencement ceremony is presented in June. For more information, schedule a consultation with a counselor at (650) 949-7423.

Catalog Rights/Requirements for Graduation
The Course Catalog serves as an agreement between the student and the college to identify courses that the student must complete in order to qualify for a degree or certificate. The student has the right to select the course requirements for a degree or certificate from any catalog as long as continuous enrollment has been maintained.

Allied health programs reserve the right to change catalog rights by modifying program requirements based upon state and federal accreditation standards.
Continuous Enrollment
Continuous enrollment is important in deciding which catalog a student may select to determine degree or certificate requirements. A continuously enrolled student is defined as one who attended Foothill or De Anza colleges at least two quarters each academic year, excluding Summer Session. A single W grade in a term qualifies as an attended term.

Currency of Major/Certificate Requirements
In certain Foothill College programs, currency of course content is essential. The Foothill College Curriculum Committee reserves the right to determine an acceptable level of currency of any course in any major or certificate. This means that a course may only be used toward fulfilling a certificate or degree for a prescribed number of years. Students should check certificate and major requirements for courses that are noted as having currency levels.

Online Degrees
The Foothill Global Access (FGA) Program offers online educational opportunities and services comparable to those available to on-site students. FGA offers students a variety of distance learning courses that meet the same high academic standards as traditional classes.

The program also offers several associate degree programs entirely online, including anthropology, database management, art history, economics, general studies/social science, geography, history, computer software development, music technology, psychology and sociology as well as general education requirements. These degrees are fully transferable and can be completed online. A few courses, such as speech, English and math, may require occasional meetings or proctored exams. For more information, access www.foothill.edu/fga.

Discontinued Degrees
A discontinued degree is one that was once offered by Foothill College but which is no longer offered. To be considered for an associate degree in a discontinued program, the student who has maintained continuous enrollment may file to graduate from Foothill College within seven years of the time that a program is discontinued.

Non-Transcriptable Certificates
Certificate completion will not appear on the student’s transcript.

Course Numbering System
Most Foothill courses are baccalaureate in level and can be transferred to four-year institutions. In general, courses at Foothill College are numbered using the following guidelines:

<table>
<thead>
<tr>
<th>NUMBER</th>
<th>INSTITUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1–49</td>
<td>Transferable to the University of California.</td>
</tr>
<tr>
<td>1–99</td>
<td>Transferable to the California State University.</td>
</tr>
<tr>
<td>1–199</td>
<td>Foothill AA/AS degree-applicable.</td>
</tr>
<tr>
<td>200–299</td>
<td>Prerequisites for required courses that lead to the AA/AS degree* and non-degree applicable credit courses.</td>
</tr>
<tr>
<td>300–399</td>
<td>Workshops, review and other courses offered to meet special collegiate needs of a community nature.</td>
</tr>
<tr>
<td>400–499</td>
<td>Non-credit, non-graded courses in consumer education, senior education, adaptive learning or other areas that do not apply to the AA/AS degree.</td>
</tr>
</tbody>
</table>

All courses numbered 200 and above are non-degree applicable. Grades earned in these courses shall not be included in the student’s degree-applicable grade point average.

There are exceptions to this numbering system. Consult the course listings in this catalog to determine which courses between 1–199 are non-degree applicable. Students should consult a counselor to determine course transferability. A list of transferable courses may be viewed at www.assist.org.

*Basic Skills: Limitations & Waivers
Enrollment in basic skills courses is limited to no more than 45 quarter units at Foothill College. ESL and learning disabled students are exempt from this limitation. Waivers may be available for other students who show significant progress, but these waivers are only for a specified period of time or number of units.

Visit the Counseling Office for copies of the Foothill Associate Degree/Graduation Requirements; CSU GE/Breadth Requirements; and IGETC listings or access them online at www.foothill.edu.

For help deciding which general education plan to follow, consult a Foothill counselor.

Certification of General Education for Transfer
Foothill College will certify completion of up to 58 units of the 72-unit general education requirement for graduation from the CSU (See chart on page 61). IGETC Certification for CSU or UC requires full certification of Areas 1 through 5. (See chart on page 60). You may request certification by completing the official certification form or transcript request form available from the Admissions & Records Office in Room 8101 or Evaluations Office in Room 8301.

You are encouraged to consult with a counselor for help in selecting courses. We encourage all students to check each quarter for new course requirements.
Four-Year Institution Requirements

Articulation Agreements
Articulation is the process of negotiating and approving Foothill courses with other institutions. Foothill has course-to-course and major-preparation articulation agreements with nearly every UC and CSU campus, and many four-year colleges and universities. This information is available to you through your counselor or via the Internet. To review online information, access these Web sites:
- www.foothill.edu
- www.assist.org
- Web site of the specific college of interest

Transfer Admission Guarantees
If you complete a Transfer Admission Guarantee (TAG), you’ll be given first consideration for admission to selected colleges and universities. You must complete agreed-upon general education courses, as well as major courses, with a specified minimum grade point average. Work with a counselor to develop a TAG. The TAG must be prepared before transfer. The TAG ensures acceptance and smooth transfer to the chosen college or university. The Transfer Center, Room 8329, has additional information regarding deadlines for TAGs.

The following institutions offer Transfer Admission Guarantees for Foothill students:
- Cornell University*
- CSU Monterey Bay
- CSU East Bay
- Golden Gate University
- Menlo College
- National Hispanic University
- Notre Dame de Namur University
- Palo Alto University
- Santa Clara University
- UC Davis
- UC Irvine
- UC Merced
- UC Riverside
- UC San Diego
- UC Santa Barbara
- UC Santa Cruz
- University of San Francisco
- University of the Pacific

* Applies to School of Civil & Environmental Engineering.

This list increases each year. Verify current TAG availability in the Transfer Center, Room 8329.

Additional transfer agreements are also available through the Foothill Honors Institute, including the Transfer Alliance Program with the University of California, Los Angeles (UCLA). To verify current honors agreements, visit the Honors Institute (Room 5426).

University of California

Breadth General Education Requirements
The University of California (UC) has campuses at Berkeley, Davis, Irvine, Los Angeles, Merced, Riverside, San Diego, San Francisco, Santa Barbara and Santa Cruz.

UC campuses have uniform basic eligibility requirements. Each campus is distinctive, however, and not all majors are offered at every campus. Each school and college at a specific UC campus has outlined major requirements that prepare you for the academic discipline.

Foothill’s counselors and Career/Transfer Center staff can advise you regarding the courses acceptable for credit at UC campuses as well as those meeting the breadth requirements for specific UC colleges and schools. You can also review this information on the Internet at www.assist.org. The Foothill College website at www.foothill.edu includes the Transfer Course Agreement Listing for all Foothill courses that are transferable to all UC campuses. You should explore all undergraduate colleges, schools and majors to determine which campuses will best satisfy your educational needs. We encourage you to discuss the advantages of each major and campus with a counselor.

Preparation for Transfer to Four-Year Colleges & Universities
Each year, hundreds of Foothill College students transfer to a four-year college or university after completing lower-division major preparatory and general education requirements. The secret of our students’ success is that they understand which transferable courses are required for:
- Admission to the college/university of their choice;
- Major preparation; and
- Completion of general education requirements.

Counselors are an excellent resource for transfer information. Understanding these requirements ensures that students can transfer in a timely manner to earn their bachelor’s degree without delay.

These requirements often change annually; therefore, students should meet with a counselor every year. Many of the courses offered at Foothill College are similar to courses offered in the lower division, or first two years, at four-year colleges and universities. Because requirements often vary significantly from campus to campus, it is recommended that you decide on your major and transfer institution as soon as possible. In addition to offering counselors to help you with this decision, Foothill College offers Counseling (CNSL) and Career Life Planning (CRLP) courses to help you explore and evaluate options.
Transfer to the California State University
To be eligible for transfer, students must complete at least 90 transferable quarter units with a cumulative 2.0 grade point average in all transferable courses as well as satisfy minimum admission requirements.

Lower-Division Transfer
At some universities, students who were eligible for CSU admission when they graduated from high school may apply for transfer admission before completing 84 transferable units. Meeting with a counselor can help students decide on the best transfer plan. Occasionally, students elect to transfer at the lower-division level. Such students must have a minimum 2.0 grade point average, be in good standing at the last college or university attended, and meet the minimum admission requirements for first-time freshmen. For these students, high school deficiencies must be completed. SAT or ACT test scores are also required for these applicants.

Upper-Division Transfer
Students who have completed a minimum of 90 transferable units with a grade point average of 2.0 or better in all transferable courses may be eligible for transfer if they complete at least 45 quarter units with a grade of C or better in selected general education courses. These units must include:
- At least 12 quarter units to include written communication, oral communication and critical thinking; and
- At least one course from the approved list of mathematics courses.

Major Requirements
Students are encouraged to complete as many lower-division major preparatory requirements as possible prior to transfer. Many majors, especially in highly selective programs, have supplemental requirements that must be met prior to transfer. Consult with a counselor for additional information. These requirements may also be viewed at www.assist.org. Some oversubscribed programs may require supplemental courses or information for admission.

Transfer to the University of California
With thoughtful planning, transferring to the University of California need not be complicated. Students should be aware that both the major and general education requirements vary from campus to campus; therefore, it is advisable to meet with a counselor as early as possible to develop an effective educational plan. To be eligible to transfer as a junior, students must complete a minimum of 90 transferable quarter units with a minimum 2.4 transferable grade point average. The University of California generally does not permit lower-division transfers. Admission to most UC campuses is competitive; therefore, a grade point average higher than the minimum is necessary to be a viable applicant. Selection is based largely upon completion of the prescribed list of lower-division major requirements and explanation of career goals as outlined in the application essay. These requirements may be obtained from a counselor or by viewing the articulation agreements posted at www.assist.org. The Transfer Center in Room 8329 offers both application essay-writing workshops and transfer coaching.

Oversubscribed Programs
Impacted or oversubscribed programs vary from year to year; however, in recent years, the following majors have been highly selective:
- UC BERKELEY: Admission to most majors is selective;
- UC DAVIS: Biological sciences, engineering, computer science, psychology;
- UC IRVINE: Biological sciences, computer science, engineering;
- UCLA: Communication, economics, engineering, life sciences, motion picture;
- UC RIVERSIDE: Business administration, engineering;
- UC SAN DIEGO: Biological sciences, engineering;
- UC SANTA BARBARA: Biological sciences, computer science, engineering; and
- UC SANTA CRUZ: Art, environmental studies, psychology.
Minimum Admission Requirements
To qualify for admission to the University of California, students must meet one of the three sets of criteria that follow:

1. Students who were eligible for admission to the University of California when they graduated from high school are eligible to apply for transfer if they have maintained a cumulative grade point average of at least 2.0 in all UC-transferable courses. Consult a counselor for information regarding the specific subject, scholarship and examination requirements.

2. Students who met the scholarship requirement upon graduation from high school, but who did not satisfy the subject requirement must take transferable college courses in the missing subjects to be eligible for transfer. Students must earn a grade of C or better in each of these courses as well as maintain a cumulative grade point average of at least 2.0 in all UC-transferable work.

   Students who met the scholarship requirement but who did not meet the examination requirement must complete a minimum of 18 quarter units of transferable work with an overall grade point average of 2.0 in all transferable college work completed.

3. Students who were not eligible for admission to the University of California upon high school graduation must:
   A. Complete a minimum of 90 quarter units of UC-transferable college credit with a grade point average of at least 2.4.
   B. Complete the following course pattern, earning a C or better in each course:
      ■ Two UC-transferable college courses (minimum 4.5 quarter units each) in English composition; and
      ■ One UC-transferable college course (minimum 4.5 quarter units) in mathematical concepts and quantitative reasoning; and
      ■ Four UC-transferable college courses (minimum 4.5 quarter units each) chosen from at least two of the following subject areas: arts and humanities, social and behavioral sciences, and physical and biological sciences.

Eligibility for transfer does not guarantee admission. To present a competitive application, students are encouraged to exceed minimum requirements.

Priority Application Filing Period
Students are encouraged to apply during the following application periods:

<table>
<thead>
<tr>
<th>APPLICATION ACCEPTED FOR</th>
<th>CSU</th>
<th>UC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td>Oct. 1–Nov. 30</td>
<td>Nov. 1–30</td>
</tr>
<tr>
<td>Winter</td>
<td>June 1–30</td>
<td>July 1–31</td>
</tr>
<tr>
<td>Spring</td>
<td>Aug. 1–31</td>
<td>Oct. 1–31</td>
</tr>
<tr>
<td>Summer</td>
<td>Feb. 1–28</td>
<td></td>
</tr>
</tbody>
</table>

While all campuses accept students for fall admission, many do not accept for spring or winter. Consult a counselor for details about a specific campus.
A.A./A.S. Degree & General Education Requirements

The requirements for the Associate in Art or Associate in Science degree include completion of (1) a minimum of 90 units in prescribed courses; (2) a minimum of 24 units taken at Foothill College; (3) a grade-point average of 2.0 or better in all college courses including Foothill courses; (4) a major of at least 27 units in a curriculum approved by the Foothill College Curriculum Committee; and (5) the seven general education requirements listed below. If you plan to transfer to a four-year college or university, you should also consult with a Foothill College counselor for the specific requirements of those institutions.

You must successfully complete a minimum of 30-35 units from the courses listed below with at least one course in Humanities, English, Natural Sciences (with lab), Social and Behavioral Sciences, Communication and Analytical Thinking, United States Cultures and Communities, and two courses in Lifelong Learning from two different academic departments. Courses may only be used in one area.

### Area I—Humanities

**Arts:** ART 1, 2A, 2AH, 2B, 2BH, 2C, 2CH, 2D, 2E, 4A with 4AX, 5A with 5AX, 11, 14, 36, 45A with 45AX; F A 1; GID 1; MUS 1, 2A, 2B, 2C, 3A, 3B, 3C, 7, 7D, 7E, 8, 8H, 10, 11A, 11B, 85A, 85B; PHOT 1, 5, 8, 8H, 10, 10H, 11; THTR 1, 5B, 20A, 20B, 20C, 20D, 24; VART 2A, 2B, 2C; WMN 15.


### Area II—English

ENGL 1A, 1AH or ESLL 26.

### Area III—Natural Sciences (with laboratory)

ASTR 10A with 10L, 10B with 10L, 10BH with 10L; BIOL 9 with 9L, 10, 13, 14, 15, 41; CHEM 1A, 25, 30A; GEOG 1; HORT 10; PHYS 2A, 4A.

### Area IV—Social & Behavioral Sciences

ANTH 1, 2A, 2B, 3, 4, 5, 6, 8, 12, 18; BUSI 22, 53; CHLD 55; ECON 1A, 1B, 9, 25; GEOG 1, 2, 5, 9, 10, 12; GERM 8; HIST 4A, 4B, 4C, 4CH, 8, 9, 9H, 10, 15, 16, 16H; HUMN 1A, 2B, 3A, 3B, 7C, 18, 20; POLI 1, 2, 2H, 3, 3H, 9, 15, 15H; PSYC 1, 4, 10, 14, 21, 22, 25, 30, 33, 40, 49, 55; SOC 1, 10, 11, 15, 19, 20, 21, 23, 30, 40; SOSC 20; WNM 5, 11, 21.

### Area V—Communication & Analytical Thinking

CIS 12A, 15A, 18, 25A; COMM 1A, 1B, 2, 3, 4, 12, 24, 30, 46, 55; ENGL 1B, 1BH, 4; MATH 1A, 1B, 1C, 2A, 2B, 10, 11, 12, 22, 44, 49, 51; PHIL 1, 7, 8, 50.

*Intermediate algebra or equivalent means MATH 105, or mathematics placement test score indicating eligibility for a mathematics course above the level of MATH 105, or completion of a higher level course with a grade of “C” or better, or completion of a bachelor’s degree or higher from an accredited U.S. college or university.

For the most current list of requirements, access [www.foothill.edu](http://www.foothill.edu). Effective Summer 2010
Intersegmental General Education Transfer Curriculum (IGETC)

IGETC is a pattern of Foothill College courses that fulfills lower-division general education requirements for transfer to California State University and University of California. IGETC is an alternative to the CSU and local UC General Education-Breadth Requirements. Many private universities also recognize IGETC for fulfillment of general education requirements.

IGETC is a good option for the student who intends to transfer but is undecided about a major and/or unsure about attending CSU or UC. Some majors require extensive lower-division preparation, therefore, IGETC may not be the best choice for general education. Some universities do not accept IGETC. Always consult a counselor when developing an educational plan.

Course requirements for all areas of IGETC must be completed with a grade of C or better and certified by Foothill College for university credit. Submit a request for IGETC certification at the Counseling Center or Admissions Office.

For updated information, consult your counselor or access www.assist.org. Completion of IGETC requirements also qualifies students for a Foothill College Certificate of Achievement in Transfer Studies.

**Area 1—English Communication**

**CSU:** Three courses required, one from Group A, B and C.
**UC:** Two courses required, one each Group A & B.
**Group A:** English Composition, one course: 4–5 quarter units ENGL 1A, 1AH
**Group B:** Critical Thinking-English Composition, one course: 4–5 quarter units ENGL 1B, 1BH, 1C, 1CH, PHIL 1
**Group C:** Oral Communication (CSU requirement only) one course: 4–5 quarter units COMM 1A, 1AH, 1B, 1BH, 2, 3, 4

**Area 2—Mathematical Concepts & Quantitative Reasoning**

One course: 4–5 quarter units CIS 18, MATH 1A, 1B, 1C, 1D, 2A, 2B, 10, 11, 12, 22, 44, 49.

**Area 3—Arts & Humanities**

At least three courses, with at least one course from Arts and one course from Humanities—9 semester; 12–15 quarter units.
**Arts:** ART 1, 2A, 2AH, 2B, 2BH, 2C, 2CH, 2D, 2E, 3, 11, 12, 13, 14; DAN 10; ENGL 42A, 42B, 42C; MUS 1, 2A, 2B, 2C, 2D, 3A, 3B, 3C, 7, 7D, 7E, 8, 8H, 10, 11A, 11B, 11C, 27, 85A, 85B; PHIL 11; PHOT 8, 8H, 10, 10H, 11; THTHR 1, 2A, 2B, 2C, 8; VART 1, 2A, 2B, 2C, 3; WMN 15

**Area 4—Social & Behavioral Sciences**

*(CSU transfers see note re: History & Institutions) At least three courses from at least two disciplines or an interdisciplinary sequence: 12–15 quarter units.
ANTH 2A, 2B, 3, 4, 5, 6, 8; ART 2E; CHLD 55; COMM 10, 12; ECON 1A, 1B, 9, 25; GEOG 2, 5, 9, 10; GER 8; HIST 4A, 4B, 4C, 4CH, 8, 9, 9H, 10, 15, 16, 16H, 17A, 17B, 17C, 18, 20; PHED 2; PHOT 8, 8H, POLI 1, 2, 2H, 3, 3H, 9, 9H, 15, 15H, 24; PSYC 1, 4, 10, 14, 21, 22, 25, 30, 33, 40, 49; SOC 1, 8, 10, 11, 15, 20, 21, 23, 30, 40; SOSC 20; WMN 5, 11, 15, 21

**Area 5—Physical & Biological Sciences**

At least two courses, one Physical Science course and one Biological Science course; at least one must include a laboratory (underlined courses include lab): 9–12 quarter units
**Physical Sciences:** ASTR 10A, 10L, 10B, 10BH; CHEM 1A, 1B, 1C, 12A, 12B, 12C, 25, 30A, 30B; GEOG 1; PHYS 2A, 2B, 2C, 4A, 4B, 4C, 4D, 6, 12
**Biological Sciences:** ANTH 1, 1L; BIOL 1A, 1B, 1C, 1D, 9, 9L, 10, 12, 13, 14, 17, 40A, 40B, 40C, 41, 45; HORT 10

**Area 6—Language Other Than English**

*(UC Requirement Only) Proficiency equivalent to two years of high school study in the same language. Transcripts must be on file with Foothill College.
CHIN 2, 3, 4, 5, 6; GERM 2, 3; JAPN 2, 3, 4, 5, 6; SPAN 2, 3, 4, 5, 6,

**CSU Graduation Requirement in U.S. History, Constitution & American Ideals**

This CSU requirement is not a part of IGETC. CSU transfer students completing IGETC must complete this requirement prior to graduation from CSU. Courses used to fulfill IGETC may not be double-counted toward this requirement.

In order to complete this requirement prior to transfer, students must complete one course from Group One and one course from Group Two:
**Group One:** POLI 1 or 7
**Group Two:** HIST 17A, 17B or 17C

Courses used to meet this requirement may not be used to satisfy requirements for IGETC.

For updated information, access www.assist.org Effective Fall 2010.
California State University General Education Breadth Requirements*

Foothill College will certify completion of up to 58 quarter units of the 70-unit general education requirement for graduation from the CSU for the student who meets the following course patterns. A minimum of 45 units in GE, including all of Area A and B-4 (Math) must be completed prior to transfer. For updated information, consult your counselor or access www.assist.org. Completion of the CSU GE requirements also qualifies students for a Foothill College Certificate of Achievement in Transfer Studies.

### Area A—English Language & Critical Thinking

12–15 quarter units are required for admission and must be completed with a grade of C or better.

**A-1 Oral Communication:** (select one course) COMM 1A, 1AH, 1B, 1BH, 2, 3 or 4

**A-2 Written Communication:** ENGL 1A, 1AH, 1B, 1BH or ESLL 26

**A-3 Critical Thinking:** (select one course) PHIL 1, 7, 50; ENGL 1B, 1BH, 1C, 1CH

### Area B—Scientific Inquiry & Quantitative Reasoning

12–15 quarter units. Choose one course from B-1 and one course from B-2. One course must include a laboratory. Laboratory courses are indicated with an asterisk (*).

**B-1 Physical Science:** ASTR 10A, 10B, 10BH, 10L*; CHEM 1A*, 1B*, 1C*, 12A*, 12B*, 12C*, 25*, 30A*, 30B*; GEOG 1*; PHYS 2A*, 2B*, 2C*, 4A*, 4B*, 4C*, 4D*, 6, 12

**B-2 Life Science (Biological):** ANTH 1, 1L*; BIOL 1A*, 1B*, 1C*, 1D, 9, 9L*, 10*, 12, 13*, 14*, 15*, 17, 40A*, 40B*, 40C*, 41*, 45; BTEC 10; HORT 10*

**B-4 Mathematics/Quantitative Reasoning:** (Grade C or better) CIS 18; MATH 1A, 1B, 1C, 1D, 2A, 2B, 10, 11, 12, 22, 44, 49, 51 (required for admission to CSU)

### Area C—Arts & Humanities

Complete 12–15 quarter units, including a minimum of one course from Area C-1 and one course from Area C-2. Note: ENGL 1B is strongly recommended for students who completed PHIL 1 in Area A-3.

**C-1 Arts (Art, Dance, Music, Theatre):** ART 1, 2A, 2AH, 2B, 2BH, 2C, 2CH, 2D, 2E, 3, 4A with 4AX, 4C with 4CX, 6, 11, 12, 13, 14, 45A with 45AX, 80; COMM 24, 30, 46; DANC 10; ENGL 42A, 42B, 42C; MUS 1, 2A, 2B, 2C, 2D, 3A, 3B, 3C, 7, 7D, 7E, 8, 8H, 10, 11A, 11B, 11C, 27, 85A, 85B; PHIL 11; PHOT 1, 8, 8H, 10, 10H, 11, 11H; THTR 1, 2A, 2B, 2C, 8, 20A with 20AL, 46; VART 1, 2C, 3; WMN 15

**C-2 Humanities (Literature, Philosophy, Foreign Languages):** CHIN 1, 2, 3, 4, 5, 6, 25A, 25B; COMM 12, 30; CRWR 6, 39A, 39B, 40, 41A, 41B, 60; ENGL 1B, 5, 5H, 7, 7H, 8, 11, 11H, 12, 14, 17, 22, 25, 25H, 26, 31, 40, 40H, 40I, 42A, 42B, 42C, 46A, 46B, 46C, 48A, 48B, 48C; FA 1, 2; GERM 1, 2, 3; HIST 4A, 4B, 4C, 4CH; HUMN 1A, 1B; JAPN 1, 2, 3, 4, 5, 6, 25A, 25B, 33; LING 25, 25H, 26; PHIL 2, 4, 8, 20A, 20B, 20C, 22, 24, 25; SPAN 1, 2, 3, 4, 5, 6, 25A, 25B, 39; THTR 2A, 2B, 2C; VART 2A, 2B

### Area D—Social Sciences

Complete 12–15 quarter units from #1 and #2 below:

1. **American Institutions Requirement for CSU graduation:** Complete one course from each group:
   - **Group One:** POLI 1
   - **Group Two:** HIST 17A, 17B or 17C.

2. Complete at least one course from D-1 through D-0:
   - **D-1 Anthropology & Archaeology:** ANTH 2A, 2B, 3, 4, 5, 6, 8L, 8LX, 8LY, 11, 50
   - **D-2 Economics:** ECON 1A, 1B, 9, 25; GEOG 5; POLI 9
   - **D-3 Ethnic Studies:** (Some CSU campuses have specific courses to meet this requirement.) ANTH 2B, 4, 6; ART 11; CHLD 11; COMM 12; ENGL 12, 31; HIST 10; MUS 8; PHIL 24, 25; PHOT 8, 8H; PSYC 21, 22; SOC 21, 23; SOSC 20; WMN 21
   - **D-4 Gender Studies:** ART 2E; COMM 10; ENGL 22; PSYC 21; SOC 21; WMN 5, 11, 15, 21
   - **D-5 Geography:** GEOG 2, 5, 9, 10
   - **D-6 History:** HIST 4A, 4B, 4C, 4CH, 8, 9, 9H, 10, 15, 16, 16H, 17A, 17B, 17C, 18, 19, 20, 23A, 24, 30; POLI 24
   - **D-7 Interdisciplinary Social or Behavioral Science:** CHLD 11, 55; ENGL 26; HIST 18; LING 26; PHED 2; SOC 8; SOSC 20; SPED 62; VART 8
   - **D-8 Political Science, Government & Legal Institutions:** ECON 9; GERM 8; HIST 30; POLI 1, 2, 2H, 3, 3H, 9, 9H, 15, 15H
   - **D-9 Psychology:** CHLD 50A, 55; PSYC 1, 4, 10, 14, 21, 22, 25, 30, 33, 40, 49, 55; SOC 10, 21, 30; WMN 21
   - **D-0 Sociology & Criminology:** PSYC 10, 21, 30; SOC 1, 8, 10, 11, 15, 20, 21, 23, 30, 40, 57; WMN 21

### Area E—Lifelong Understanding & Self-Development

A minimum of four quarter units from the following:

1. BIOL 8
2. CNSL 2, 72
3. CRLP 70
4. HLTH 21
5. PHED 4
6. PSYC 50
7. SOC 19, 40
8. SPED 52, 62, 72
9. Physical Education activity courses (maximum allowed: 2 units)

*Effective Fall 2010

For updated information, access www.assist.org

*A minimum of 90 units required for the A.A./A.S. Degree, to include required courses, required electives, and graduation requirements, and these minimum proficiencies: ENGL 1A or ESLL 26, and MATH 105.*

Foothill College 2010–2011 www.foothill.edu
**ACCOUNTING**

**Program Type(s):**
- AA Degree; Certificate of Achievement; Certificate of Proficiency; Career Certificate

May be transferable to a 4-year university.
Units required for major: 48, certificate: 9–38

**Associate Degree Requirements**

**Core Courses:** (38 units)
- ACTG 1A Financial Accounting I (5 units)
- ACTG 1B Financial Accounting II (5 units)
- ACTG 1C Managerial Accounting (5 units)
- ACTG 64A Computerized Accounting Practice Using QuickBooks (2 units)
- ACTG 64B Computerized Accounting Practice Using Excel (2 units)
- ACTG 67 Tax Accounting (5 units)
- BUSI 18 Business Law I (5 units)
- BUSI 22 Principles of Business (4 units)
  - or BUSI 53 Survey of International Business (4 units)
- ECON 1A Principles of Macroeconomics (5 units)
  - or ECON 1B Principles of Microeconomics (5 units)

**Elective Courses:** (10 units)
- ACTG 51A Intermediate Accounting I (4 units)
- ACTG 51B Intermediate Accounting II (4 units)
- ACTG 51C Intermediate Accounting III (4 units)
- ACTG 60 Accounting for Small Business (5 units)[1]
- ACTG 65 Payroll & Business Tax Accounting (4 units)
- ACTG 66 Cost Accounting (5 units)
- ACTG 68A Advanced Tax Accounting I (4 units)
- ACTG 68B Advanced Tax Accounting II (4 units)
- ACTG 68C Advanced Tax Accounting III (3 units)
- BUSI 19 Business Law II (4 units)
- BUSI 53 Survey of International Business (4 units)[2]
- BUSI 61 Investment Fundamentals (3 units)
- ECON 1A Principles of Macroeconomics (5 units)[3]
- ECON 1B Principles of Microeconomics (5 units)[4]
- BUSI 91L Introduction to Business Information Processing (4 units)

**Certificate Information**

Request certificate forms at [www.foothill.edu/bss/cert/index.php](http://www.foothill.edu/bss/cert/index.php)

**Accounting Certificate of Achievement** (38 units)
Awarded after completion of the core courses. General education courses are not required.

**Financial Accounting Career Certificate** (22 units)

**NON-TRANSSCRIPTABLE**
- ACTG 1A Financial Accounting I (5 units)
- ACTG 1B Financial Accounting II (5 units)
- ACTG 51A Intermediate Accounting I (4 units)
- ACTG 51B Intermediate Accounting II (4 units)
- ACTG 51C Intermediate Accounting III (4 units)

**Career Certificate in Tax Accounting** (23 units)

**NON-TRANSSCRIPTABLE**
- ACTG 1B Financial Accounting II (5 units)
- ACTG 64A Computerized Accounting Practice using QuickBooks (2 units)
- ACTG 67 Tax Accounting (5 units)
- ACTG 68A Advanced Tax Accounting I (4 units)
- ACTG 68B Advanced Tax Accounting II (4 units)
- ACTG 68C Advanced Tax Accounting III (3 units)

**Enrolled Agent Preparation Certificate of Proficiency** (16 units)

**NON-TRANSSCRIPTABLE**
- ACTG 67 Tax Accounting (5 units)
- ACTG 68A Advanced Tax Accounting I (4 units)
- ACTG 68B Advanced Tax Accounting II (4 units)
- ACTG 68C Advanced Tax Accounting III (3 units)

**Tax Specialist Certificate of Proficiency** (13 units)

**NON-TRANSSCRIPTABLE**
- ACTG 65 Payroll & Business Tax Accounting (4 units)
- ACTG 67 Tax Accounting (5 units)
- ACTG 68A Advanced Tax Accounting I (4 units)

**Bookkeeping Specialist Certificate of Proficiency** (13 units)

**NON-TRANSSCRIPTABLE**
- ACTG 60 Accounting for Small Business (5 units)
  - or ACTG 1A Financial Accounting I (5 units)
- ACTG 64A Computerized Accounting Practice Using QuickBooks (2 units)
- ACTG 64B Computerized Accounting Practice Using Excel (2 units)
- ACTG 65 Payroll & Business Tax Accounting (4 units)

**Payroll Preparation Certificate of Proficiency** (9 units)

**NON-TRANSSCRIPTABLE**
- ACTG 60 Accounting for Small Business (5 units)
  - or ACTG 1A Financial Accounting I (5 units)
- ACTG 65 Payroll & Business Tax Accounting (4 units)

**ADAPTIVE AQUATICS**

**Program Type(s):**
- Career Certificate

**Career Certificate:** (26 units) **NON-TRANSSCRIPTABLE**
- Core Courses: (18 units)
SPED 50 Introduction to Adaptive Fitness Techniques (3 units)
SPED 55 Geriatric Fitness Concepts (3 units)
SPED 57 Working with Special Populations (3 units)
SPED 73 Introduction to Aquatic Exercise (3 units)
SPED 74 Principles of Adaptive Aqua Fitness (3 units)
SPED 75 Internship in Adaptive Aquatics (3 units)

Support Courses: (8 units)
BIOL 14 Human Biology (5 units)
BIOL 45 Introduction to Human Nutrition (4 units)
ERN 50 Sociology of Aging (3 units)
ERN 51 Psychology of Aging (3 units)
ERN 52 Health & Aging (3 units)
ERN 56 Aging & Diversity (3 units)
HLTH 55 Emergency Response (5 units)
PHED 8 Theory & Concepts of Exercise Physiology (4 units)
SPED 62 Psychological Aspects of Disability (4 units)
SPED 72 Stress, Wellness & Coping (3 units)

**ADAPTIVE FITNESS THERAPY**

Program Type(s):
AA Degree; Certificate of Achievement

Units required for major: 40, certificate: 25

**Associate Degree Requirements**

Core Courses: (32 units)
BIOL 14 Human Biology (5 units)
SPED 50 Introduction to Adaptive Fitness Techniques (3 units)
SPED 52 Positive Aging (3 units)
SPED 54 Principles of Therapeutic Exercise (3 units)
SPED 55 Geriatric Fitness Concepts (3 units)
SPED 56 Functional Aspects of Adaptive Fitness (3 units)
SPED 57 Working with Special Populations (3 units)
SPED 62 Psychological Aspects of Disability (4 units)
SPED 73 Introduction to Aquatic Exercise (3 units)
ERN 56 Aging & Diversity (3 units)

Support Courses: (8 units)
BIOL 40A Human Anatomy & Physiology I (5 units)
BIOL 40B Human Anatomy & Physiology II (5 units)
BIOL 40C Human Anatomy & Physiology III (5 units)
COMM 3 Fundamentals of Oral Communication (5 units)
ERN 50 Sociology of Aging (3 units)
ERN 51 Psychology of Aging (3 units)
ERN 52 Health & Aging (3 units)
ERN 53 Practicum in Senior Services (3 units)
ERN 54 Continuum of Care Options (3 units)
ERN 55 Issues in Death, Dying & Bereavement Across Cultures (3 units)
ERN 56 Aging & Diversity (3 units)
HLTH 55 Emergency Response (5 units)
PSYC 1 General Psychology (5 units)
SPED 61 Introduction to Disabilities (4 units)
SPED 63 Learning Disabilities (4 units)
SPED 64 Disability & the Law (4 units)
SPED 65 Fundamentals of Attention Deficit Disorders (4 units)
SPED 66 Disability & Technology Access (4 units)
SPED 72 Stress, Wellness & Coping (3 units)
SPED 74 Principles of Adaptive Aqua Fitness (3 units)

**Adaptive Fitness Therapy Certificate of Achievement (25 units)**

SPED 50 Introduction to Adaptive Fitness Techniques (3 units)
SPED 52 Positive Aging (3 units)
SPED 54 Principles of Therapeutic Exercise (3 units)
SPED 55 Geriatric Fitness Concepts (3 units)
SPED 56 Functional Aspects of Adaptive Fitness (3 units)
SPED 57 Working with Special Populations (3 units)
SPED 62 Psychological Aspects of Disability (4 units)
SPED 73 Introduction to Aquatic Exercise (3 units)

**AMERICAN STUDIES**

Program Type(s):
AA Degree

Units required for major: 33.5

**Associate Degree Requirements**

Core Courses: (25.5 units)
ART 14 American Art (4.5 units)
ENGL 41 Literature of Multicultural America (4 units)
HIST 17A History of the United States to 1816 (4 units)
HIST 17B History of the United States from 1812 to 1914 (4 units)
MUS 8 Music of Multicultural America (4 units)
or MUS 8H Honors Music of Multicultural America (4 units)
POLI 1 Political Science: Introduction to American Government & Politics (5 units)

Support Courses: (8 units)
ANTH 4 First Peoples of North America (4 units)
HIST 10 History of California: The Multicultural State (4 units)
PSYC 22 Psychology of Prejudice (4 units)
SOC 15 Law & Society (4 units)
WMN 5 Introduction to Women’s Studies (4 units)

**ANTHROPOLOGY**

Program Type(s):
AA Degree; Certificate of Proficiency

Units required for major: 32, certificate: 9–20

**Associate Degree Requirements**

Core Courses: (16 units)
Select four of the following:
ANTH 1 Introduction to Physical Anthropology (4 units)
ANTH 2A Cultural Anthropology (4 units)
ANTH 3 Prehistory: The Search for Lost Civilizations (4 units)
ANTH 4 First Peoples of North America (4 units)
ANTH 8 Introduction to Archaeology (4 units)

[12] De Anza Courses: All same or similar De Anza courses may be substituted (by petition) for Foothill Business & Social Science (BSS) courses and Social Science General Education requirements, regardless of units. The unit total for the AA degree remains the same.

*A minimum of 90 units required for the A.A./A.S. Degree, to include required courses, required electives, and graduation requirements, and these minimum proficiencies: ENGL 1A or ESL 26, and MATH 105.

Foothill College 2010–2011 www.foothill.edu
Support Courses: (8 units)
ANTH 1L Physical Anthropology Laboratory (1 unit)
ANTH 2B Patterns of Culture (4 units)
ANTH 5 Magic, Science & Religion (4 units)
ANTH 6 Peoples of Africa (4 units)
ANTH 8L Archaeology Laboratory (1 unit)
ANTH 11B Archaeology Survey (2 units)
ANTH 34H Honors Institute Seminar in Anthropology (1 unit)
ANTH 35 Department Honors Projects in Anthropology (1 unit)
ANTH 36, X, Y or Z Special Projects in Anthropology (1–4 units)
ANTH 50 Medical Anthropology: Methods & Practice (4 units)
GEOG 1 Physical Geography (5 units)
or GEOG 2 Human Geography (4 units)

Elective Courses: (8 units)
BIOL 1C Evolution, Systematics & Ecology (6 units)
BIOL 10 General Biology: Basic Principles (5 units)
HIST 4A History of Western Civilization to 800 AD (4 units)
HIST 8 History of Latin America (4 units)
HIST 9 History of Contemporary Europe (4 units)
or HIST 9H Honors History of Contemporary Europe (4 units)
HIST 18 Introduction to Middle Eastern Civilization (4 units)
HUMN 1A Humanities & the Modern Experience I (4 units)
ENGL 26 Language, Mind & Society (4 units)
or LING 26 Language, Mind & Society (4 units)
SOC 30 Social Psychology (4 units)
SOC 40 Aspects of Marriage & Family (4 units)
SOCS 20 Cross-Cultural Perspectives for a Multicultural Society (4 units)
SOC 36 Special Projects in Social Science (1 unit)
WMN 5 Introduction to Women’s Studies (4 units)

Certificate Information
Awarded to the student who completes three or more courses in a specific anthropology subfield with a cumulative GPA of 3.0 or higher. Request certificate forms at www.foothill.edu/bss/cert/index.php

Medical Anthropology Certificate of Proficiency (20 units) NON-TRANSCRIPTABLE
ANTH 1 Introduction to Physical Anthropology (4 units)
ANTH 50 Medical Anthropology: Methods & Practice (4 units)
And one of the following:
ANTH 5 Magic, Science & Religion (4 units)
ANTH 12 Applied Anthropology (4 units)
And 8 units from the following:
BIOL 14 Human Biology (5 units)
BIOL 40A Human Anatomy & Physiology I (5 units)
or BIOL 40B Human Anatomy & Physiology II (5 units)
PSYC 4 Introduction to Psychobiology (4 units)
PSYC 10 Introduction to Social Research (4 units)
PSYC 40 Human Development (4 units)
SOC 19 Alcohol & Drug Abuse (4 units)
ANTH 34H Honors Institute Seminar in Anthropology (1 unit)
ANTH 35 Department Honors Projects in Anthropology (1–4 units)

Cultural Anthropology Certificate of Proficiency (16 units) NON-TRANSCRIPTABLE
Select 12 units from the following:
ANTH 2A Cultural Anthropology (4 units)
ANTH 2B Patterns of Culture (4 units)
ANTH 4 First Peoples of North America (4 units)
ANTH 5 Magic, Science & Religion (4 units)
ANTH 6 Peoples of Africa (4 units)
ANTH 12 Applied Anthropology (4 units)
And 4 units from the following:
ANTH 34H Honors Institute Seminar in Anthropology (1 unit)
ANTH 35 Department Honors Projects in Anthropology (1 unit)
ANTH 36, X, Y or Z Special Projects in Anthropology (1–4 units)
COMM 12 Intercultural Communication (5 units)
ENGL 25 Introduction to Descriptive & Historical Linguistics (4 units)
or ENGL 25H Honors Introduction to Descriptive & Historical Linguistics (4 units)
or LING 25 Introduction to Descriptive & Historical Linguistics (4 units)
or LING 25H Honors Introduction to Descriptive & Historical Linguistics (4 units)
ENGL 26 Language, Mind & Society (4 units)
or LING 26 Language, Mind & Society (4 units)
SOC 30 Social Psychology (4 units)
or PSYC 30 Social Psychology (4 units)
SOC 40 Aspects of Marriage & Family (4 units)
WMN 5 Introduction to Women’s Studies (4 units)

Archaeology Certificate of Proficiency (16 units) NON-TRANSCRIPTABLE
Select 12 units from the following:
ANTH 3 Prehistory: The Search for Lost Civilizations (4 units)
ANTH 4 First Peoples of North America (4 units)

[13] Students may also use courses listed under support courses for electives. One course cannot count for both support and elective units.
ANTH 8 Introduction to Archaeology (4 units)
ANTH 8L Archaeology Laboratory (1 unit)
ANTH 11 Archaeological Field Methods (4 units)
ANTH 11B Archaeology Survey (2 units)

And 4 units from the following:
HIST 4A History of Western Civilization to 800 AD (4 units)
HIST 8 History of Latin America (4 units)
HIST 15 History of Mexico (4 units)
HIST 18 Introduction to Middle Eastern Civilization (4 units)
GEOG 1 Physical Geography (5 units)
GEOG 12 Introduction to Geographic Information Systems (GIS) (4 units)
ANTH 34H Honors Institute Seminar in Anthropology (1 unit)
ANTH 35 Department Honors Projects in Anthropology (1 unit)
ANTH 36 Special Projects in Anthropology (1–4 units)

Physical Anthropology Certificate of Proficiency (9 units)
NON-TRANSCRIPTABLE[17]
ANTH 1 Introduction to Physical Anthropology (4 units)
ANTH 1L Physical Anthropology Laboratory (1 unit)

And 4 units from the following:
BIOL 1C Evolution, Systematics & Ecology (6 units)
BIOL 10 General Biology: Basic Principles (5 units)
BIOL 12 Human Genetics (4 units)
ANTH 34H Honors Institute Seminar in Anthropology (1 unit)
ANTH 35 Department Honors Projects in Anthropology (1 unit)
ANTH 36, X, Y or Z Special Projects in Anthropology (1–4 units)

APPRENTICESHIP: ELEVATOR CONSTRUCTORS

Program Type(s):
Career Certificate

Certificate information
Entry into any of the certificate programs requires that you fill out an application at the apprenticeship school; pass an entry exam with a score of 70 percent or better; and pass an oral examination. At the end of the program, students are required to take a state exam to receive their license card from the Department of Apprenticeship Standards. This test is not administered at Foothill College, and is coordinated at the apprenticeship school.

Elevator Constructor Career Certificate (24 units)
APRT 170 Introduction to the Elevator Constructor Program (3 units)
APRT 171 PIT Structures; Guide Rails; Overhead Installation; Roping & Re-Roping (3 units)
APRT 172 Basic Electricity; Electrical Circuits; Electromagnetism (3 units)
APRT 173 Advanced Electricity; Voltage, Current & Resistance; DC Generators & Motors (3 units)
APRT 174 Industry Elevator Construction Training; Construction Wiring; Doors & Operators (3 units)
APRT 175 Hydraulics for Elevator Constructors; Escalators & Moving Walks (3 units)
APRT 176 Circuit Tracing; Basic Elevator Solid State Electronics (3 units)
APRT 177 Basic Elevator Solid State Electronics II (3 units)

APPRENTICESHIP: PIPE TRADES

Program Type(s):
Career Certificate
NON-TRANSCRIPTABLE[18]

Certificate information
Entry into any of the certificate programs requires that the student complete an application at the apprenticeship school; pass an entry exam with a score of 70 percent or better; and pass an oral examination.

Commercial Plumbing Career Certificate, San Mateo (42.5 units) NON-TRANSCRIPTABLE[19]
APPT 161 Safety/Tools/Heritage/Service (4 units)
APPT 162 Mathematics/Science for the Plumbing Trade (4.5 units)
APPT 163 Code/Water Supply Systems (4 units)
APPT 164 Drawing I for the Plumbing Trades (4.5 units)
APPT 165 Drawing II for the Plumbing Trades (4 units)
APPT 166 Welding/Oxy-Acetylene Training (4.5 units)
APPT 167 Steam Systems/Rigging/Pipe Fitting & Service (4 units)
APPT 168 Medical Gas/Hydronics (4.5 units)
APPT 169 Advanced Drawing/Layout for the Plumbing Trades (4 units)
APPT 170 Code II/Junior Mechanics Review & Exam (4.5 units)

Heating, Ventilation, Air Conditioning (HVAC) Refrigeration Fitter Career Certificate, San Mateo (42.5 units) NON-TRANSCRIPTABLE[20]
APPT 171 Basic Refrigeration/Heritage/CFC (4 units)
APPT 172 Refrigeration Science (4.5 units)
APPT 173 Basic Electricity for the HVAC Service Trade (4 units)
APPT 174 Advanced Electricity/Pneumatic DDC Introduction (4.5 units)
APPT 175 Controls I/Electro Pneumatics (4 units)
APPT 176 Controls II/Advanced Pneumatics Calibration/Hydronics (4.5 units)
APPT 177 Start, Test & Balance I (4 units)
APPT 178 Start, Test & Balance II (4.5 units)
APPT 179 Chillers/Special Systems/HVACR Star Review (4 units)
APPT 180 HVACR Star Review & Exit Exam (4.5 units)

Steam Fitter Career Certificate, San Mateo (42.5 units) NON-TRANSCRIPTABLE[21]
APPT 161 Safety/Tools/Heritage/Service (4 units)
APPT 162 Mathematics/Science for the Plumbing Trade (4.5 units)
APPT 163 Code/Water Supply Systems (4 units)

[18] Certificate completion will not appear on the student’s transcript.
A minimum of 90 units required for the A.A./A.S. Degree, to include required courses, required electives, and graduation requirements, and these minimum proficiencies: ENGL 1A or ESLL 26, and MATH 105.

APPT 164 Drawing I for the Plumbing Trades (4.5 units)
APPT 165 Drawing II for the Plumbing Trades (4 units)
APPT 166 Welding/Oxy-Acetylene Training (4.5 units)
APPT 167 Steam Systems/Rigging/Pipe Fitting & Service (4 units)
APPT 168 Medical Gas/Hydrronics (4.5 units)
APPT 169 Advanced Drawing/Layout for the Plumbing Trades (4 units)
APPT 170 Code II/Junior Mechanics Review & Exam (4.5 units)

**APPRENTICESHIP: SHEET METAL**

**Program Type(s):**
Career Certificate, Certificate of Achievement; Certificate of Specialization

**Certificate information**
Entry into any of the certificate programs requires that the student complete an application at the apprenticeship school; pass an entry exam with a score of 70 percent or better; and pass an oral examination.

**Sheet Metal Building Trades Certificate of Achievement (45 units)**
APSM 101 SMQ-1 Trade Introduction (1.5 units)
APSM 102 SMQ-2 Certified Safety & Beginning Trade Math (1.5 units)
APSM 103 SMQ-3 Sheet Metal Tools & Shop (1.5 units)
APSM 104 SMQ-4 Soldering & Common Seams (1.5 units)
APSM 105 SMQ-5 Drafting Introduction & Views (1.5 units)
APSM 106 SMQ-6 Beginning Duct Fittings (1.5 units)
APSM 107 SMQ-7 Parallel Line Fittings (1.5 units)
APSM 108 SMQ-8 Triangulation Fittings (1.5 units)
APSM 109 SMQ-9 Radial Line Layout & Ogee Offsets (1.5 units)
APSM 110 SMQ-10 Basics of Architectural Sheet Metal (1.5 units)
APSM 111 SMQ-11 Architectural Sheet Metal (1.5 units)
APSM 112 SMQ-12 Field Installation (1.5 units)
APSM 113 SMQ-13 Welding 1: Process & Safety Overview (1.5 units)
APSM 114 SMQ-14 Welding 2: GMAW (1.5 units)
APSM 115 SMQ-15 Welding 3: GMAW (1.5 units)
APSM 116 SMQ-16 Plans & Specifications (1.5 units)
APSM 117 SMQ-17 Submittals & Shop Drawings (1.5 units)
APSM 118 SMQ-18 Industrial & Stainless Steel Introduction (1.5 units)
APSM 119 SMQ-19 HVAC Air Systems & Duct Design (1.5 units)
APSM 120 SMQ-20 Measuring & Sketching (1.5 units)
APSM 121 SMQ-21 Fabrication & Shortcuts (1.5 units)
APSM 122 SMQ-22 Codes & Standards (1.5 units)
APSM 123 SMQ-23 Residential Sheet Metal (1.5 units)
APSM 124 SMQ-24 Metal Roofing (1.5 units)
APSM 125 SMQ-25 Detailing (1.5 units)
APSM 126 SMQ-26 Foreman Training (1.5 units)
APSM 127 SMQ-27 Basic AutoCAD (1.5 units)

And 3 of the following courses:
APSM 130 SMQ-30 Advanced Welding (1.5 units)

APSM 131 SMQ-31CAD Detailing (Beginning CAD Duct) (1.5 units)
APSM 132 SMQ-32 Intermediate CAD Detailing (1.5 units)
APSM 133 SMQ-33 Advanced Architectural (1.5 units)
APSM 134 SMQ-34 Advanced Layout Fabrication (1.5 units)
APSM 135 SMQ-35 Project Management, Takeoffs & Estimates (1.5 units)
APSM 136 SMQ-36 Service Basics (1.5 units)
APSM 137 SMQ-37 Final HVAC Project (1.5 units)
APSM 138 SMQ-38 Final Architectural, Industrial, Ornamental Project (1.5 units)

**Sheet Metal Testing & Air Balance Certificate of Achievement (45 units)**
APRT 143A Air Balance Test Equipment & Instruments (First Year) (4.5 units)
APRT 143B Temperature Measurement Instruments & Duct Systems (First Year) (4.5 units)
APRT 149A Electrical Systems Operation, Controls & Devices (TAB-2) (4.5 units)
APRT 149B HVAC Testing & Balancing Procedures (TAB-2) (4.5 units)
APRT 150A Air Distribution & Manufacturing Systems (TAB-3) (4.5 units)
APRT 150B Systems Installation & Troubleshooting (TAB-3) (4.5 units)
APRT 153A Control Systems & Customer Service I (TAB-4) (4.5 units)
APRT 153B Control Systems & Customer Service II (TAB-4) (4.5 units)
APRT 154A Project Management for the Test & Air Balance Industry (TAB-5) (4.5 units)
APRT 154B Hazardous Material Recognition for the Test & Air Balance Industry (TAB-5) (4.5 units)

**Sheet Metal Air Conditioning Service Mechanic Career Certificate (45 units) NON-TRANSCRIPTABLE[22]**
APPR 183A Basic Electricity for Sheet Metal Air Conditioning Service (4.5 units)
APPR 183B Advanced Electricity for Sheet Metal & Air Conditioning Service (4.5 units)
APPR 184A Air Conditioning; Commercial Systems; Heating (Fourth-Year Service) (4.5 units)
APPR 184B Commercial Systems; Heat Loads; Piping (Fourth-Year Service) (4.5 units)
APPR 185A Basic Refrigeration for Sheet Metal Air Conditioning Service (4.5 units)
APPR 185B Advanced Refrigeration for Sheet Metal Air Conditioning Service (4.5 units)
APPR 186A Properties of Air Distribution for Sheet Metal Air Conditioning Service (4.5 units)
APPR 186B Refrigeration Theory for Sheet Metal Air Conditioning Service (4.5 units)

[22] Certificate completion will not appear on the student’s transcript.
A minimum of 90 units required for the A.A./A.S. Degree, to include required courses, required electives, and graduation requirements, and these minimum proficiencies: ENGL 1A or ESLL 26, and MATH 105.

* ART GENERAL

Program Type(s): AA Degree, Certificate of Achievement, Certificate of Specialization

Units required for major: 46.5, certificate: 18–46.5

Associate Degree Requirements*

Core Courses: (28.5 units)
ART 1 Introduction to Art (4.5 units)
ART 4A Drawing I (3 units)[27]
ART 4B Drawing II (3 units)
ART 4C Drawing III (3 units)
or ART 4D Figure Drawing (3 units)
ART 5A Basic Two-Dimensional Design (3 units)[28]
ART 5B Three-Dimensional Design (3 units)
ART 6 Collage & Composition (3 units)
ART 20A Color (3 units)
ART 45A Beginning Ceramics Handbuilding (3 units)[29]

Support Courses: (Minimum 18 units)
ART 2A History of Art: History of Western Art from Prehistory through Early Christianity (4.5 units)
or ART 2AH Honors Art History: History of Western Art from Prehistory through Early Christianity (4.5 units)
ART 2B History of Western Art from the Middle Ages to the Renaissance (4.5 units)
or ART 2BH Honors History of Western Art from the Middle Ages to the Renaissance (4.5 units)
ART 2C History of Western Art from the Baroque to Post Impressionism (4.5 units)
or ART 2CH Honors History of Western Art from the Baroque to Post Impressionism (4.5 units)
ART 2D African, Oceanic & Native American Art (4.5 units)
ART 2E A History of Women in Art (4.5 units)
ART 3 Modern Art & Contemporary Thought (4.5 units)
ART 4C Drawing III (3 units)
ART 4D Figure Drawing (3 units)
ART 4E Portrait Drawing (3 units)
ART 8 Basic Perspective Drawing (3 units)
ART 11 Introduction to Mexican Art & Architecture (4 units)
ART 14 American Art (4.5 units)
ART 19A Painting (3 units)
ART 19B Painting (3 units)
ART 19C Painting (3 units)
ART 44 Ceramic Sculpture (3 units)
ART 45B Beginning Ceramics Potter’s Wheel (3 units)
ART 45C Advanced Ceramics (3 units)
ART 45F Low-Temperature Ceramic Firing & Glazing Techniques (3 units)
ART 47 Watercolor (3 units)

*APRT 106A Sheet Metal Control Systems (Fifth-Year Service) (4.5 units)
APRT 106B Energy Management & Customer Service (Fifth-Year Service) (4.5 units)

Sheet Metal Air Conditioning Certificate of Specialization (10 units) NON-TRANSCRIPTABLE[23]
APPR 188A Orientation; Safety & Beginning Residential Sheet Metal Installation (Specialist 1A) (2.5 units)
APPR 188B Residential Components Identification & Installation (Specialist 1B) (2.5 units)
APPR 189A Residential Systems; Duct & HVAC Systems (Specialist 2A) (2.5 units)
APPR 189B Plans & Architectural Applications for Residential Sheet Metal (Specialist 2B) (2.5 units)

Sheet Metal Ship Yard Certificate of Specialization (7.5 units) NON-TRANSCRIPTABLE[24]
APRT 144A Introduction to Marine Sheet Metal Training for Apprentices I (2.5 units)
APRT 144B Introduction to Marine Sheet Metal Training for Apprentices II (2.5 units)
APRT 151A Intermediate Marine Sheet Metal Training for Apprentices I (2.5 units)

APPRENTICESHIP: SOUND & COMMUNICATION

Program Type(s):
Career Certificate NON-TRANSCRIPTABLE[25]
Certificate information
Entry into any of the certificate programs requires that the student complete an application at the apprenticeship school; pass an entry exam with a score of 70 percent or better; and pass an oral examination. At the end of the program, students are required to take a state exam to receive their license card from the Department of Apprenticeship Standards. This test is not administered at Foothill College, and is coordinated at the apprenticeship school.

Sound & Communication Career Certificate (21 units) NON-TRANSCRIPTABLE[26]
APSC 111 Job Information, Safety, Test Instruments, Structured Cabling, Fiber Optics & Blueprint Reading (3.5 units)
APSC 112 DC Theory, Codes & Practices, Boxes, Connectors & Raceways (3.5 units)
APSC 121 AC Theory, Power Quality, Fire Alarm Systems & Grounding (3.5 units)
APSC 122 Security, Access Control, Telephony & Paging Systems (3.5 units)
APSC 131 Semiconductors, Nurse Call, Audio Visual Systems (3.5 units)
APSC 132 CCTV Systems, Fire/Life Safety & Voice Data Video State Certification Prep (3.5 units)

[23] Certificate completion will not appear on the student’s transcript.
[26] Certificate completion will not appear on the student’s transcript.
A minimum of 90 units required for the A.A./A.S. Degree, to include required courses, required electives, and graduation requirements, and these minimum proficiencies: ENGL 1A or ESLL 26, and MATH 105.

ART 49 Monoprinting (3 units)
or GID 48 Monoprinting (3 units)
ART 69 Introduction to Printmaking (3 units)
or GID 38 Printmaking I (4 units)
GID 39 Printmaking II (4 units)
ART 80 Mural Making: Community Art Project (3 units)
ART 86 Printing with the Computer (3 units)
GID 90 Book Arts I (4 units)
VART 20 Digital Video Production I (4 units)
or GID 20 Digital Video Production I (4 units)
GID 39 Printmaking II (4 units)
ART 80 Mural Making: Community Art Project (3 units)
ART 86 Painting with the Computer (3 units)
GID 90 Book Arts I (4 units)
VART 20 Digital Video Production I (4 units)
or GID 20 Digital Video Production I (4 units)
GID 39 Printmaking II (4 units)

**ART HISTORY**

*Program Type(s):*

**AA Degree; Certificate of Achievement, Certificate of Specialization**

Units required for major: 48, certificate: 18–48

**Associate Degree Requirements**

**Core Courses:** (36 units)

**ART 1 Introduction to Art (4.5 units)**

**ART 2A History of Art: History of Western Art from Prehistory through Early Christianity (4.5 units)**
or ART 2AH Honors Art History: History of Western Art from Prehistory through Early Christianity (4.5 units)

**ART 2B History of Western Art from the Middle Ages to the Renaissance (4.5 units)**
or ART 2BH Honors History of Western Art from the Middle Ages to the Renaissance (4.5 units)

**ART 2C History of Western Art from the Baroque to Post Impressionism (4.5 units)**
or ART 2CH Honors History of Western Art from the Baroque to Post Impressionism (4.5 units)

**ART 2D African, Oceanic & Native American Art (4.5 units)**

**ART 19A Painting (3 units)**
or ART 47 Watercolor (3 units)

**ART 19B Painting (3 units)**
or ART 47 Watercolor (3 units)

**ART 19C Painting (3 units)**
or ART 47 Watercolor (3 units)

**ART 20A Color (3 units)**
or ART 47 Watercolor (3 units)

**Support Courses:** (6 units)

Select 6 units from the list of degree support courses.

**Certificate of Achievement in Art History (48 units)**

Awarded upon completion of the core and support courses. General education courses are not required.

**Certificate of Specialization in Art History (18 units)**

NON-TRANSCRIPTABLE

**Core Courses:** (18 units)

**ART 1 Introduction to Art (4.5 units)**

**ART 2A History of Art: History of Western Art from Prehistory through Early Christianity (4.5 units)**
or ART 2AH Honors Art History: History of Western Art from Prehistory through Early Christianity (4.5 units)

**ART 2B History of Western Art from the Middle Ages to the Renaissance (4.5 units)**
or ART 2BH Honors History of Western Art from the Middle Ages to the Renaissance (4.5 units)

**ART 2C History of Western Art from the Baroque to Post Impressionism (4.5 units)**
or ART 2CH Honors History of Western Art from the Baroque to Post Impressionism (4.5 units)

**ART 2D African, Oceanic & Native American Art (4.5 units)**

**ART 19A Painting (3 units)**
or ART 47 Watercolor (3 units)

**ART 19B Painting (3 units)**
or ART 47 Watercolor (3 units)

**ART 19C Painting (3 units)**
or ART 47 Watercolor (3 units)

**ART 20A Color (3 units)**
or ART 47 Watercolor (3 units)

**Support Courses:** (12 units)

**ANTH 2A Cultural Anthropology (4 units)**

**PHIL 50 Introduction to Critical Thinking (4 units)**

**HIST 4A History of Western Civilization to 800 AD (4 units)**

**HIST 4B History of Western Civilization (4 units)**

**HIST 4C History of Western Civilization 1781–Present (4 units)**
or HIST 4CH Honors History of Western Civilization (4 units)

**PHOT 10 History of Photography (4 units)**
or PHOT 10H Honors History of Photography (4 units)

**ART 4A Drawing I (3 units)**

Concurrent with ART 4AX Studio Art Seminar: Drawing (1 unit)

**Certificate of Achievement in Art History (48 units)**

Awarded upon completion of the core and support courses. General education courses are not required.

**Certificate of Specialization in Art History (18 units)**

NON-TRANSCRIPTABLE

**ART 1 Introduction to Art (4.5 units)**

**ART 2A History of Art: History of Western Art from Prehistory through Early Christianity (4.5 units)**
or ART 2AH Honors Art History: History of Western Art from Prehistory through Early Christianity (4.5 units)

**Certificate of Achievement in Art History (48 units)**

Awarded upon completion of the core and support courses. General education courses are not required.

**Certificate of Specialization in Art History (18 units)**

NON-TRANSCRIPTABLE

**ART 1 Introduction to Art (4.5 units)**

**ART 2A History of Art: History of Western Art from Prehistory through Early Christianity (4.5 units)**
or ART 2AH Honors Art History: History of Western Art from Prehistory through Early Christianity (4.5 units)
A minimum of 90 units required for the A.A./A.S. Degree, to include required courses, required electives, and graduation requirements, and these minimum proficiencies: ENGL 1A or ESLL 26, and MATH 105.

ART 2B History of Western Art from the Middle Ages to the Renaissance (4.5 units) or ART 2BH Honors History of Western Art from the Middle Ages to the Renaissance (4.5 units) ART 2C History of Western Art from the Baroque to Post Impressionism (4.5 units) or ART 2CH Honors History of Western Art from the Baroque to Post Impressionism (4.5 units) or any combination of core courses to total 18 units

**ART STUDIO**

**Program Type(s):**

**AA Degree; Certificate of Achievement**

May be transferrable to a 4-year university.

Units required for major: 53.5, certificate: 53.5

**Associate Degree Requirements**

**Core Courses: (44.5 units)**

ART 2A History of Art: History of Western Art from Prehistory through Early Christianity (4.5 units) or ART 2AH Honors Art History: History of Western Art from Prehistory through Early Christianity (4.5 units) ART 2B History of Western Art from the Middle Ages to the Renaissance (4.5 units) or ART 2BH Honors History of Western Art from the Middle Ages to the Renaissance (4.5 units) ART 2C History of Western Art from the Baroque to Post Impressionism (4.5 units) or ART 2CH Honors History of Western Art from the Baroque to Post Impressionism (4.5 units) ART 4A Drawing I (3 units) ART 4B Drawing II (3 units) ART 4C Drawing III (3 units) or ART 4D Figure Drawing (3 units) ART 6 Collage & Composition (3 units) ART 5A Basic Two-Dimensional Design (3 units) or ART 45A Beginning Ceramics Handbuilding (3 units) ART 4E Portrait Drawing (3 units) ART 8 Basic Perspective Drawing (3 units) ART 19A Painting (3 units) ART 19B Painting (3 units) ART 19C Painting (3 units) ART 47 Watercolor (4 units) ART 69 Introduction to Printmaking (3 units) or GID 38 Printmaking I (4 units) ART 86 Painting with the Computer (3 units) GID 90 Book Arts I (4 units) VART 20 Digital Video Production I (4 units) or GID 20 Digital Video Production I (4 units) GID 40 Digital Printmaking (4 units) GID 50 Graphic Design Studio I (4 units) GID 60 Careers in the Visual Arts (2 units) GID 70 Graphic Design Drawing (4 units) GID 76 Illustration & Digital Imaging (4 units) PHOT 1 Black & White Photography I (4 units) or PHOT 5 Introduction to Photography (4 units)

**Three-Dimensional Art**

ART 5B Three-Dimensional Design (3 units) ART 44 Ceramic Sculpture (3 units) ART 45A Beginning Ceramics: Handbuilding (3 units) ART 45B Beginning Ceramics: Potter’s Wheel (3 units) ART 45C Advanced Ceramics (3 units) ART 45F Low-Temperature Ceramic Firing & Glazing Techniques (3 units) THTR 21 Introduction to Technical Theatre (1 unit) or THTR 21A Scenery & Properties Construction (3 units)

**Art History**

ART 2D African, Oceanic & Native American Art (4.5 units) ART 2E A History of Women in Art (4.5 units) ART 3 Modern Art & Contemporary Thought (4.5 units) ART 11 Introduction to Mexican Art & Architecture (4 units) ART 14 American Art (4.5 units)

**Certificate of Achievement in Art/Studio (53.5 units)**

Awarded upon completion of the degree core and support courses. General education courses are not required.

**ATHLETIC INJURY CARE: PHYSICAL EDUCATION**

**Program Type(s):**

**AS Degree**

Units required for major: 48

**Associate Degree Requirements**

**Core Courses: (48 units)**

PHED 1 Introduction to Physical Education as a Profession (4 units) PHED 62A Clinical Experiences in Sports Medicine I (3 units) PHED 62B Clinical Experiences in Sports Medicine II (3 units) PHED 62C Clinical Experiences in Sports Medicine III (3 units)

**[35]** ART 4AX is required if transferring to CSU and using ART 4A to satisfy the Humanities requirement.

**[36]** ART 5AX is required if transferring to CSU and using ART 5A to satisfy the Humanities requirement.

**[37]** ART 45AX is required if transferring to CSU and using ART 45A to satisfy the Humanities requirement.

**[38]** ART 45AX is required if transferring to CSU and using ART 45A to satisfy the Humanities requirement.
PHED 62D Clinical Experiences in Sports Medicine IV (3 units)
PHED 62E Clinical Experiences in Sports Medicine V (3 units)
PHED 67A Prevention of Athletic Injuries (3 units)
PHED 67B Emergency Athletic Injury Care (3 units)
PHED 67C Treatment & Rehabilitation of Athletic Injuries (3 units)
BIOL 40A Human Anatomy & Physiology I (5 units)
BIOL 40B Human Anatomy & Physiology II (5 units)
BIOL 40C Human Anatomy & Physiology III (5 units)
CHEM 25 Fundamentals of Chemistry (5 units)

Elective Courses: (optional)
BIOL 45 Introduction to Human Nutrition (4 units)
CHEM 1A General Chemistry (5 units)
CHEM 1B General Chemistry (5 units)
CHEM 1C General Chemistry & Qualitative Analysis (5 units)
HLTH 21 Health Education (3 units)
MATH 10 Elementary Statistics (5 units)
PHED 4 Concepts of Physical Fitness & Wellness (4 units)
PHED 65A PNF: Introduction to the Upper Extremity (3 units)
PHED 65B PNF: Introduction to the Lower Extremity (3 units)
PHED 66 First Aid & CPR/AED (2 units)
PHYS 2A General Physics (5 units)
PHYS 2B General Physics (5 units)
PHYS 2C General Physics (5 units)
PSYC 1 General Psychology (5 units)

**BUSINESS ADMINISTRATION**

**Program Type(s):**

**AA Degree; Career Certificate, Certificate of Specialization**

Units required for major: 51, certificate: 3.5–26

**Associate Degree Requirements***

**Core Courses: (23 units)**

- ACTG 1A Financial Accounting I (5 units)
- ACTG 1B Financial Accounting II (5 units)
- BUSI 18 Business Law I (5 units)
- BUSI 22 Principles of Business (4 units)
- BUSI 59 Principles of Marketing (4 units)

**Support Courses: (28 units)**

- ACTG 1C Managerial Accounting (5 units)
- BUSI 19 Business Law II (4 units)
- or BUSI 53 Survey of International Business (4 units)
- BUSI 91L Introduction to Business Information Processing (4 units)
- or BUSI 57 Principles of Advertising (4 units)
- or ADVT 57 Principles of Advertising (4 units)
- or BUSI 90A Principles of Management (4 units)
- ECON 1A Principles of Macroeconomics (5 units)
- ECON 1B Principles of Microeconomics (5 units)
- MATH 10 Elementary Statistics (5 units)[36]

**CSU campuses require:**

- MATH 11 Finite Mathematics (5 units)
- MATH 12 Calculus for Business & Economics (5 units)

**University of California campuses require:**

- MATH 1A Calculus (5 units)
- MATH 1B Calculus (5 units)

**Certificate information**[40]

Request certificate information at bss.foothill.fhda.edu/certificates.

**Career Certificate Business Management (26 units)**

**NON-TRANSCRIPTABLE**[41]

- BUSI 18 Business Law I (5 units)
- BUSI 22 Principles of Business (4 units)
- or BUSI 53 Survey of International Business (4 units)
- or BUSI 70 Business Professional Ethics (4 units)
- BUSI 59 Principles of Marketing (4 units)
- BUSI 91L Introduction to Business Information Processing (4 units)
- BUSI 90A Principles of Management (4 units)
- or BUSI 92 Financial Planning Practices (4 units)
- ACTG 1A Financial Accounting I (5 units)

**Career Certificate in E-Commerce & Electronic Business (26 units)**

**NON-TRANSCRIPTABLE**[42]

- BUSI 22 Principles of Business (4 units)
- or BUSI 53 Survey of International Business (4 units)

[A minimum of 90 units required for the A.A./A.S. Degree, to include required courses, required electives, and graduation requirements, and these minimum proficiencies: ENGL 1A or ESLL 26, and MATH 105.]

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BUSB 95 Entrepreneurship - Small Business Management (4 units)
BUSB 22 Principles of Business (4 units)
BUSB 18 Business Law I (5 units)
BUSB 59 Principles of Marketing (4 units)
BUSB 90A Principles of Management (4 units)
ACTG 1A Financial Accounting I (5 units)

Career Certificate in Entrepreneurship (26 units)
NON-TRANSCRIPTABLE
BUSB 95 Entrepreneurship - Small Business Management (4 units)
BUSB 22 Principles of Business (4 units)
BUSB 18 Business Law I (5 units)
BUSB 59 Principles of Marketing (4 units)
BUSB 90A Principles of Management (4 units)
ACTG 1A Financial Accounting I (5 units)

Career Certificate in Marketing (24 units)
NON-TRANSCRIPTABLE
BUSB 18 Business Law I (5 units)
BUSB 22 Principles of Business (4 units)
BUSB 57 Principles of Advertising (4 units)
BUSB 58 Survey of International Marketing (4 units)
BUSB 59 Principles of Marketing (4 units)
BUSB 62 Principles of Salesmanship (3 units)

Career Certificate in Basic Financial Literacy (16 units)
NON-TRANSCRIPTABLE
BUSB 22 Principles of Business (4 units)
BUSB 61 Investment Fundamentals (3 units)
BUSB 92 Financial Planning Practices (4 units)
ACTG 1A Financial Accounting I (5 units)

Career Certificate in Small Business (7 units)
NON-TRANSCRIPTABLE
BUSB 95 Entrepreneurship - Small Business Management (4 units)
BUSB 97 Management Seminar (.5 unit)
BUSB 133A Starting a Small Business (1 unit)
BUSB 131B How to Start a Home-Based Business (.5 unit)
BUSB 133E Small Business Marketing, Research & Planning (1 unit)

Certificate of Specialization Dispute Resolution (3.5 units)
NON-TRANSCRIPTABLE
BUSB 120 Dispute Resolution & Mediation (3.5 units)

**BUSINESS INTERNATIONAL STUDIES**

Program Type(s): AA Degree; Certificate of Achievement; Career Certificate

Units required for major: 51, certificate: 23-51

**Associate Degree Requirements**

**Core Courses:** (28 units)
ACTG 1A Financial Accounting I (5 units)
ACTG 1B Financial Accounting II (5 units)
BUSB 18 Business Law I (5 units)
BUSB 22 Principles of Business (4 units)
BUSB 53 Survey of International Business (4 units)
ECON 1A Principles of Macroeconomics (5 units)

**Support Courses:** (23 units)
Choose 3 courses from the following:
ACTG 1C Managerial Accounting (5 units)
BUSB 95E Small Business Export & Import (3 units)
BUSB 58 Survey of International Marketing (4 units)
ECON 1B Principles of Microeconomics (5 units)
ECON 25 Introduction to the Global Economy (4 units)

And one course from each of the following subject categories:

**Geography**
GEOG 1 Physical Geography (5 units)
GEOG 2 Human Geography (4 units)
GEOG 10 World Regional Geography (4 units)

**History**
HIST 8 History of Latin America (4 units)
HIST 9 History of Contemporary Europe (4 units)
HIST 15 History of Mexico (4 units)
HIST 18 Introduction to Middle Eastern Civilization (4 units)
HIST 20 History of Russia & the Soviet Union (4 units)

**Political Science/Language (1 Course or Language Proficiency)**
POLI 2 Comparative Government & Politics (4 units)
POLI 15 International Relations/World Politics (4 units)

or POLI 15H Honors International Relations/World Politics (4 units)

or advanced language proficiency in same language as in previous required courses (level 3, or tested proficiency; if student tests in this area, proficiency may count for only 4 units).

Certificate information
Request certificate information at bss.foothill.fhda.edu/certificates.

Certificate of Achievement in International Business (51 units)
Awarded after the completion of the core and supporting courses. General education courses are not required.

Career Certificate in International Business Strategy (23 units)
NON-TRANSCRIPTABLE
BUSB 53 Survey of International Business (4 units)
BUSB 58 Survey of International Marketing (4 units)
BUSB 95E Small Business Export & Import (3 units)
ECON 25 Introduction to the Global Economy (4 units)

ECON 1A can only be used once to meet one business international studies requirement.

Certificate completion will not appear on the student’s transcript.

* A minimum of 90 units required for the A.A./A.S. Degree, to include required courses, required electives, and graduation requirements, and these minimum proficiencies: ENGL 1A or ESLI 26, and MATH 105.

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A minimum of 90 units required for the A.A./A.S. Degree, to include required courses, required electives, and graduation requirements, and these minimum proficiencies: ENGL 1A or ESLL 26, and MATH 105.

And one History course:
- HIST 8 History of Latin America (4 units)
- or HIST 9 History of Contemporary Europe (4 units)
- or HIST 9H Honors History of Contemporary Europe (4 units)
- or HIST 15 History of Mexico (4 units)
- or HIST 18 Introduction to Middle Eastern Civilization (4 units)
- or HIST 20 History of Russia & the Soviet Union (4 units)

And one Political Science course:
- POLI 15 International Relations/World Politics (4 units)
- or POLI 15H Honors International Relations/World Politics (4 units)

**BUSINESS TECHNOLOGY:**
**HELP DESK/TECHNICAL SUPPORT**

**Program Type(s):**
- AS Degree; Certificate of Achievement; Career Certificate; Skills Certificate

Units required for major: 39, certificate: 10–39

**Associate Degree Requirements**

**Core Courses:** (19 units)
- CNET 54A Networking Fundamentals & the TCP/IP Protocol Suite (CCNA I) (5 units)
- CNET 75A Microsoft Windows Vista (5 units)
- CNET 116A Introduction to PC Electronics & the Command Line (A+ PREP) (5 units)
- CNET 119 Business Skills for Service/Support & Project Management (4 units)

**Support Courses:** (20 units)
- CNET 116B Windows Installation Upgrading & Troubleshooting (A+ PREP) (5 units)
- CNET 75B Windows Server 2008 Network Infrastructure (5 units)
- CNET 75C Windows Server 2008 Active Directory (5 units)
- CNET 54B Routing Protocols & Concepts (CCNA II) (5 units)

**Certificate of Achievement (39 units)**
Awarded upon completion of the core and support courses. General education courses are not required.

**Level I Career Certificate (19 units) NON-TRANSCRIPTABLE**
- CNET 54A Networking Fundamentals & the TCP/IP Protocol Suite (CCNA I) (5 units)
- CNET 75A Microsoft Windows Vista (5 units)
- CNET 116A Introduction to PC Electronics & the Command Line (A+ PREP) (5 units)
- CNET 119 Business Skills for Service/Support & Project Management (4 units)

**Level II Career Certificate (A+) (29 units)**
Provides the class work necessary to support the acquisition of A+ certification.

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**BUSINESS TECHNOLOGY:**
**OFFICE ADMINISTRATION**

**Program Type(s):**
- AS Degree; Certificate of Achievement; Skills Certificate

Units required for major: 61.5–62.5, certificate: 25.5–57

**Associate Degree Requirements**

**Core Courses:** (56–57 units)
- Prerequisite Skills (5.5 units)
  - CAST 102 Computer Keyboarding Skills (.5 units)
  - ENGL 110 Introduction to College Writing (5 units)
  - or ESLL 25 Composition & Reading (5 units)
- Office Manager: General Office Emphasis (57 units)
  - ACTG 1A Financial Accounting I (5 units)
  - ACTG 1B Financial Accounting II (5 units)
  - BT 51A Professional Keyboarding I (Beginning) (1 unit)
  - BT 51B Professional Keyboarding II (Basic Formatting) (1 unit)
  - BT 51C Proofreading I (1 unit)
  - BT 59 Integrated Business Communication (5 units)
  - BUSI 18 Business Law I (4 units)
  - BUSI 22 Principles of Business (4 units)
  - CIS 51A Preparation for Technology Careers I (3 units)
  - CIS 51C Workplace Principles & Practices (4 units)
  - CIS 60 Introduction to Business Information Systems (5 units)
  - ENGL 1A Composition & Reading (5 units)
  - or ENGL 1AH Honors Composition & Reading (5 units)
  - MATH 10 Elementary Statistics (5 units)
  - MATH 105 Intermediate Algebra (5 units)
  - MATH 220 Elementary Algebra (4 units)

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[51] Certificate completion will not appear on the student’s transcript.

[52] Certificate completion will not appear on the student’s transcript.
Office Manager: Office Computing Emphasis (56 units)
B T 51A Professional Keyboarding I (Beginning) (1 unit)
B T 51B Professional Keyboarding II (Basic Formatting) (1 unit)
B T 51C Proofreading I (1 unit)
B T 59 Integrated Business Communication (5 units)
BUSI 22 Principles of Business (4 units)
CAST 86A Introduction to Adobe InDesign (4 units)
CAST 93A PowerPoint: Effective Presentations (4 units)
CIS 51A Preparation for Technology Careers I (3 units)
CIS 51C Workplace Principles & Practices (4 units)
CIS 60 Introduction to Business Information Systems (5 units)
COIN 61 Publishing on the Web Using HTML/XHTML (5 units)
COIN 56 E-Business (5 units)
ENGL 1A Composition & Reading (5 units)
or ENGL 1AH Honors Composition & Reading (5 units)
MATH 220 Elementary Algebra (4 units)

Office Manager: General Office Certificate of Achievement (62.5 units)
Awarded upon completion of the prerequisite skills and general office emphasis core courses. General education courses are not required.

Office Manager: Office Computing Certificate of Achievement (61.5 units)
Awarded upon completion of the prerequisite skills and office computing emphasis core courses. General education courses are not required.

Business Communication Skills Certificate (20 units)
NON-TRANSCRIPTABLE[53]
B T 51A Professional Keyboarding I (Beginning) (1 unit)
B T 51B Professional Keyboarding II (Basic Formatting) (1 unit)
B T 51C Proofreading I (1 unit)
B T 59 Integrated Business Communication (5 units)
CIS 51A Preparation for Technology Careers I (3 units)
CIS 60 Introduction to Business Information Systems (5 units)
MATH 220 Elementary Algebra (4 units)

Internet/Electronic Commerce Certificate of Achievement (39 units)
Requires the Business Communication Skills Certificate and:
COIN 51 Internet Technology & Applications: Introduction (5 units)
COIN 56 E-Business (5 units)
COIN 61 Publishing on the Web Using HTML/XHTML (5 units)
CIS 51C Workplace Principles & Practices (4 units)

Database/SQL Certificate of Achievement (37 units)
Requires the Business Communication Skills Certificate and:
CAST 109F Using Access (3 units)
CIS 52A Introduction to Data Management Systems (5 units)
CIS 52B Oracle SQL (5 units)
CIS 51C Workplace Principles & Practices (4 units)

Accounting/Spreadsheets Certificate of Achievement (36 units)
Requires the Business Communication Skills Certificate and:
CAST 107D Excel Basics (3 units)

Chemistry
Program Type(s):
AS Degree
Units required for major: 60

Associate Degree Requirements*
Core Courses: (60 units)
Chemistry: 33 units:
CHEM 1A General Chemistry (5 units)
CHEM 1B General Chemistry (5 units)
CHEM 1C General Chemistry & Qualitative Analysis (5 units)
CHEM 12A Organic Chemistry (6 units)
CHEM 12B Organic Chemistry (6 units)
CHEM 12C Organic Chemistry (6 units)

Mathematics: 15 units:
MATH 1A Calculus (5 units)
MATH 1B Calculus (5 units)
MATH 1C Calculus (5 units)
MATH 1D Calculus (5 units)
MATH 2A Differential Equations (5 units)

Physics: 12 units:
PHYS 4A General Physics-Calculus (6 units)
PHYS 4B General Physics-Calculus (6 units)
PHYS 4C General Physics-Calculus (6 units)
PHYS 4D General Physics-Calculus (6 units)

Child Development
Program Type(s):
AA Degree; Certificate of Achievement; Certificate of Specialization
May be transferrable to a 4-year university.
Units required for major: 40, certificate: 24–80

Associate Degree Requirements*
Core Courses: (15 units)
CHLD 55 Child Growth & Development (5 units)
CHLD 56N Introduction to Child Development (4 units)
CHLD 88 Child, Family & Community (4 units)
CHLD 88B Positive Behavior Management (2 units)

* A minimum of 90 units required for the A.A./A.S. Degree, to include required courses, required electives, and graduation requirements, and these minimum proficiencies: ENGL 1A or ESLL 26, and MATH 105.

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Support Courses: (22 units)
- CHLD 11 Affirming Diversity in Education (4 units)
- CHLD 56 Observation Techniques (4 units)
- CHLD 72 Language Development (3 units)
- CHLD 86B Practicum Student Teaching in an Early Childhood Program (5 units)
- CHLD 95 Health, Safety & Nutrition in Children's Programs (3 units)

And one of the following:
- CHLD 59 Working with School-Age Children: Principles & Practices (3 units)
- CHLD 79 Caring for Infants & Toddlers in Groups (3 units)
- CHLD 89 Curriculum for Early Care & Education Programs (3 units)

Elective Courses: (3 units)
- ENGL 8 Children's Literature (4 units)
- CHLD 50 School-Age Child (5–12): Behavior & Development (3 units)
- CHLD 50A Infant/Toddler Development (3 units)
- CHLD 50B Preschool Years: Ages 3 to 6 (3 units)
- CHLD 53NC Supporting Children with Special Needs in Children’s Programs (3 units)
- CHLD 53NP Atypical Development in the Early Years (3 units)
- CHLD 59 Working with School-Age Children: Principles & Practices (3 units) (if not used as a support course)
- CHLD 63N Artistic & Creative Development (3 units)
- CHLD 64N Building Relationships Between Parents & Children (1 unit)
- CHLD 68–68Z Topics/Projects in Child Development (1–4 units)
- CHLD 71 Planning Creative Art Activities for Children (1 unit)
- CHLD 73 Music & Movement in the Early Years (3 units)
- CHLD 74 Science & Nature (1 unit)
- CHLD 79 Caring for Infants & Toddlers in Groups (3 units) (if not used as a support course)
- CHLD 82 Planning Creative Dramatics (1 unit)
- CHLD 85 Literacy & Literature in Preschool Education (3 units)
- CHLD 86A Mentoring & Professional Development of Early Childhood Professionals (4 units)
- CHLD 89 Curriculum for Early Care & Education Programs (3 units) (if not used as a support course)
- CHLD 90B Administration & Supervision: Designing & Starting Child Care Facilities (4 units)
- CHLD 90C Administration & Supervision: Program Operation (4 units)
- CHLD 91 Administration & Supervision: Adult Supervision (4 units)
- PSYC 1 General Psychology (5 units)
- PSYC 14 Childhood & Adolescence (4 units)

Certificate information
Request certificate forms at www.foothill.edu/bss/cert/index.php

Infant Toddler Development Certificate of Specialization
(24 units) NON-TRANSCRIPTABLE[^4]
Meets the requirements for the California Commission on Teacher Credentialing Child Development Associate Teacher Permit.

Core Courses: (15 units)
- CHLD 55 Child Growth & Development (5 units)
- CHLD 56N Introduction to Child Development (4 units)
- CHLD 88 Child, Family & Community (4 units)
- CHLD 88B Positive Behavior Management (2 units)

And the following:
- CHLD 50A Infant/Toddler Development (3 units)
- CHLD 53NP Atypical Development in the Early Years (3 units)
- CHLD 79 Caring for Infants & Toddlers in Groups (3 units)

Early Childhood Education Certificate of Achievement
(25 units)
Meets the requirements for the California Commission on Teacher Credentialing Child Development Associate Teacher Permit.

Core Courses: (15 units)
- CHLD 55 Child Growth & Development (5 units)
- CHLD 56N Introduction to Child Development (4 units)
- CHLD 88 Child, Family & Community (4 units)
- CHLD 88B Positive Behavior Management (2 units)

And the following:
- CHLD 11 Affirming Diversity in Education (4 units)
- CHLD 53NP Atypical Development in the Early Years (3 units)
- CHLD 89 Curriculum for Early Care & Education Programs (3 units)

School-Age Child Care Certificate of Specialization
(25 units) NON-TRANSCRIPTABLE[^5]
Meets the requirements for the California Commission on Teacher Credentialing Child Development Associate Teacher Permit.

Core Courses: (15 units)
- CHLD 55 Child Growth & Development (5 units)
- CHLD 56N Introduction to Child Development (4 units)
- CHLD 88 Child, Family & Community (4 units)
- CHLD 88B Positive Behavior Management (2 units)

And the following:
- CHLD 50 School-Age Child (5–12): Behavior & Development (3 units)
- CHLD 59 Working with School-Age Children: Principles & Practices (3 units)
- ENGL 8 Children's Literature (4 units)

Inclusion & Children with Special Needs Certificate of Specialization
(25 units) NON-TRANSCRIPTABLE[^6]
Meets the requirements for the California Commission on Teacher Credentialing Child Development Associate Teacher Permit.

Core Courses: (15 units)
- CHLD 55 Child Growth & Development (5 units)
- CHLD 56N Introduction to Child Development (4 units)

[^4]: Certificate completion will not appear on the student’s transcript.
[^5]: Certificate completion will not appear on the student’s transcript.
[^6]: Certificate completion will not appear on the student’s transcript.
CHLD 88 Child, Family & Community (4 units)
CHLD 88B Positive Behavior Management (2 units)

And the following:
CHLD 11 Affirming Diversity in Education (4 units)
CHLD 53NC Supporting Children with Special Needs in Children’s Programs (3 units)
CHLD 53NP Atypical Development in the Early Years (3 units)

Child Development Teacher Certificate of Achievement (64 units)
Meets the requirements for the California Commission on Teacher Credentialing Child Development Teacher Permit. Awarded after completion of the degree core, support and elective requirements and 24 units of general education courses (one course from each of the following categories):
1. English/Language Arts
2. Math or Science
3. Social Sciences
4. Humanities and/or Fine Arts

Program Supervision & Mentoring Certificate of Achievement (80 units)
Meets the requirements for the California Commission on Teacher Credentialing Child Development Site Supervisor Permit. Completion of the Child Development Teacher Certificate of Achievement (64 units)

And the following:
CHLD 86A Mentoring & Professional Development of Early Childhood Professionals (4 units)
CHLD 90B Administration & Supervision: Designing & Starting Child Care Facilities (4 units)
CHLD 90C Administration & Supervision: Program Operation (4 units)
CHLD 91 Administration & Supervision: Adult Supervision (4 units)

CHINESE

Program Type(s):
AA Degree; Career Certificate; Certificate of Specialization

Units required for major: 30, certificate: 15–30

Associate Degree Requirements*

Core Courses: (27 units)

Select any 30 units from the following:
CHIN 25B Advanced Composition & Reading II (4 units)

Certificate of Specialization in Chinese Conversation (16 units)
NON-TRANSCRIPTABLE
CHIN 13A Intermediate Conversation I (4 units)
CHIN 13B Intermediate Conversation II (4 units)
CHIN 14A Advanced Conversation II (4 units)
CHIN 14B Intermediate Conversation II (4 units)

Certificate of Specialization in Chinese Language (15 units)
NON-TRANSCRIPTABLE
CHIN 1 Elementary Chinese I (5 units)
CHIN 2 Elementary Chinese II (5 units)
CHIN 3 Elementary Chinese III (5 units)

Career Certificate in Chinese Language (30 units)
NON-TRANSCRIPTABLE
Select any 30 units from the following:
CHIN 1 Elementary Chinese I (5 units)
CHIN 2 Elementary Chinese II (5 units)
CHIN 3 Elementary Chinese III (5 units)

Certificate completion will not appear on the student’s transcript.

COMMUNICATION STUDIES

Program Type(s): AA Degree; Certificate of Proficiency; Career Certificate; Certificate of Specialization

Units required for major: 27, certificate: 12–27

Associate Degree Requirements*

Core Courses: (27 units)

General Concentration Core: (27 units)
COMM 1A Public Speaking (5 units)
or COMM 1AH Honors Public Speaking (5 units)

And five courses from the following:
COMM 1B Argumentation & Persuasion (5 units)
or COMM 1BH Honors Argumentation & Persuasion (5 units)
COMM 2 Interpersonal Communication (5 units)
COMM 3 Fundamentals of Oral Communication (5 units)
COMM 4 Group Discussion (5 units)
COMM 10 Gender, Communication & Culture (5 units)
COMM 12 Intercultural Communication (5 units)

Certificate completion will not appear on the student’s transcript.

At least 10 units must be completed in residence at Foothill College.

Students who can demonstrate proficiency equivalent to 1 year of college Chinese, CHIN 1, 2 and 3 can be eliminated from the core courses. However, the intermediate and advanced courses must be taken in residence at Foothill College.
COMM 53 Forensic Speech & Debate (4.5 units)
COMM 54, X, Y, Z Special Projects: Intercollegiate Debate (1–5 units)
COMM 55 Career & Leadership Communication in the Global Workplace (5 units)

**Intercultural Concentration Core: (27 units)**
COMM 10 Gender, Communication & Culture (5 units)
COMM 12 Intercultural Communication (5 units)

**And two courses from the following:**
COMM 1A Public Speaking (5 units)
COMM 1AH Honors Public Speaking (5 units)
COMM 1B Argumentation & Persuasion (5 units)
COMM 1BH Honors Argumentation & Persuasion (5 units)
COMM 3 Fundamentals of Oral Communication (5 units)
COMM 4 Group Discussion (5 units)
COMM 53 Forensic Speech & Debate (4.5 units)
COMM 54, X, Y, Z Special Projects: Intercollegiate Debate (1–5 units)
COMM 55 Career & Leadership Communication in the Global Workplace (5 units)

**And one of the following:**
HIST 10 History of California: The Multicultural State (4 units)
MUS 8 Music of Multicultural America (4 units)
MUS 8H Honors Music of Multicultural America (4 units)
PSYC 22 Psychology of Prejudice (4 units)
SOC 20 Major Social Problems (4 units)
SOC 20C Cross-Cultural Perspectives for a Multicultural Society (4 units)
THTR 8 Multicultural Mosaic of Performing Arts in America (4 units)
WMN 11 Women in Global Perspective (4 units)

**And one of the following:**
COMM 2 Interpersonal Communication (5 units)
ANTH 4 First Peoples of North America (4 units)
ANTH 6 Peoples of Africa (4 units)
ENGL 5 Gay & Lesbian Literature (4 units)
ENGL 7 Native American Literature (4 units)
ENGL 7H Honors Native American Literature (4 units)
ENGL 12 African American Literature (4 units)
ENGL 31 Latino/a Literature (4 units)
ENGL 40 Asian American Literature (4 units)

**Rhetoric Concentration Core: (27 units)**
COMM 2 Interpersonal Communication (5 units)
COMM 1A Public Speaking (5 units)
COMM 1AH Honors Public Speaking (5 units)
COMM 1B Argumentation & Persuasion (5 units)
COMM 1BH Honors Argumentation & Persuasion (5 units)
COMM 3 Fundamentals of Oral Communication (5 units)
COMM 4 Group Discussion (5 units)
COMM 10 Gender, Communication & Culture (5 units)
COMM 12 Intercultural Communication (5 units)

**And two courses from the following:**
COMM 2 Interpersonal Communication (5 units)
COMM 1A Public Speaking (5 units)
COMM 53 Forensic Speech & Debate (4.5 units)
COMM 54, X, Y, Z Special Projects: Intercollegiate Debate (1–5 units)
COMM 55 Career & Leadership Communication in the Global Workplace (5 units)
ENGL 4 Journalism (4 units)
ENGL 26 Language, Mind & Society (4 units)
or LING 26 Language, Mind & Society (4 units)
PHIL 1 Critical Thinking & Writing (5 units)
PHIL 7 Introduction to Symbolic Logic (5 units)
VART 2B History of Film 1945–Current (4 units)

**Career Certificate (27 units) NON-TRANSCRIPTABLE**
Awarded upon the completion of the core courses from a single concentration. General Education courses are not required.

**Certificate of Specialization (17 units) NON-TRANSCRIPTABLE**
A minimum of any four communication courses.

**Certificate of Proficiency (12 units) NON-TRANSCRIPTABLE**
A minimum of any three communication courses.

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**COMPUTER SCIENCE**

**Program Type(s):**
AS Degree

**Units required for major:** 54

**Associate Degree Requirements***
Program Prerequisite: MATH 49

**Core Courses: (35 units)**
Select one language (C++ or JAVA)
CIS 15A Computer Science I: C++ (5 units)
CIS 15B Computer Science II: C++ (5 units)
CIS 15C Computer Science III: Data Structures & Algorithms C++ (5 units)
or CIS 27A Computer Science I: JAVA (5 units)
CIS 27B Computer Science II: JAVA (5 units)
CIS 27C Computer Science III: Data Structures & Algorithms JAVA (5 units)
MATH 1A Calculus (5 units)
MATH 1B Calculus (5 units)
MATH 1C Calculus (5 units)
MATH 22 Discrete Mathematics (5 units)

**Elective Courses: (19 units)**
CIS 12A Fundamentals of Visual Basic .NET Programming (5 units)
CIS 19A Introduction to Programming with C# (5 units)
CIS 27P JAVA for Programmers (5 units)
CIS 27D JAVA Advanced Features (5 units)
CIS 52A Introduction to Data Management Systems (5 units)
CIS 52B Oracle SQL (5 units)

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**Certificate completion will not appear on the student’s transcript.**
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CIS 68A Introduction to Linux & UNIX (5 units)
CIS 68B Linux & UNIX Shell Programming (5 units)
CIS 78 Software Engineering (5 units)
CNET 54A Network Fundamentals & the TCP/IP Protocol Suite (CCNA 1) (5 units)
MATH 1D Calculus (5 units)
MATH 2A Differential Equations (5 units)
MATH 2B Linear Algebra (5 units)
PHYS 4A General Physics (Calculus) (6 units)

**COMPUTER SOFTWARE DEVELOPMENT**

**Program Type(s):**
- AS Degree; Certificate of Achievement; Career Certificate; Skills Certificate

**Units required for major:** 45, certificate: 20–40

**Associate Degree Requirements**

**Core Courses:** (25 units)
- CIS 15A Computer Science I: C++ (5 units)
- CIS 15B Computer Science II: C++ (5 units)
- CIS 15C Computer Science III: Data Structures & Algorithms C++ (5 units)
  - or CIS 27A Computer Science I: JAVA (5 units)
  - CIS 27B Computer Science II: JAVA (5 units)
  - CIS 27C Computer Science III: Data Structures & Algorithms in JAVA (5 units)
and CIS S2A Introduction to Data Management Systems (5 units)
  - CIS 78 Software Engineering (5 units)

**Elective Courses:** (20 units)
- CIS 12A Fundamentals of Visual Basic.NET Programming (5 units)
- MATH 22 Discrete Mathematics (5 units)
- CIS 68A Introduction to Linux & UNIX (5 units)
- CIS 68B Linux & UNIX Shell Programming (5 units)
- CIS 27P JAVA for Programmers (5 units)
- CIS S2B Oracle SQL (5 units)

**Linux/UNIX System Operation & Administration Certificate of Achievement (40 units)**

**Core Courses:** (30 units)
- CIS 27A Computer Science I: JAVA (5 units)
  - or CIS 15A Computer Science I: C++ (5 units)
- CIS 68A Introduction to Linux & UNIX (5 units)
- CIS 68B Linux & UNIX Shell Programming (5 units)
- CIS 68C Linux & UNIX System Administration (5 units)
  - CIS 68C2 Linux & UNIX Networking Administration (5 units)
  - CNET 54A Network Fundamentals & the TCP/IP Protocol Suite (CCNA 1) (5 units)

**Electives:** (10 units)
- CIS 27B Computer Science II: JAVA (5 units)
  - or CIS 15B Computer Science II: C++ (5 units)
- CIS 68E Programming in PERL (5 units)
- CIS 68K Introduction to Python Programming (5 units)

**Object-Oriented Software Using C++ Certificate of Achievement (40 units)**

**Core Courses:** (25 units)
- CIS 15A Computer Science I: C++ (5 units)
- CIS 15B Computer Science II: C++ (5 units)
- CIS 15C Computer Science III: Data Structures & Algorithms C++ (5 units)
- CIS S2A Introduction to Data Management Systems (5 units)
- CIS 78 Software Engineering (5 units)

**Electives:** (15 units)
- CIS 12A Fundamentals of Visual Basic.NET Programming (5 units)
- CIS 19A Introduction to Programming with C# (5 units)
- CIS 68A Introduction to Linux & UNIX (5 units)
- CIS 68B Linux & UNIX Shell Programming (5 units)
- CIS 68E Programming in PERL (5 units)
- CNET 54A Network Fundamentals & the TCP/IP Protocol Suite (CCNA 1) (5 units)
- CIS 27P JAVA for Programmers (5 units)

**Object-Oriented Software Using JAVA Career Certificate (40 units) NON-TRANSCRIPTABLE**

**Core Courses:** (25 units)
- CIS 27A Computer Science I: JAVA (5 units)
- CIS 27B Computer Science II: JAVA (5 units)
- CIS 27C Computer Science III: Data Structures & Algorithms in JAVA (5 units)
  - and CIS S2A Introduction to Data Management Systems (5 units)
- CIS 78 Software Engineering (5 units)

**Electives:** (15 units)
- CIS 12A Fundamentals of Visual Basic.NET Programming (5 units)
- CIS 19A Introduction to Programming with C# (5 units)
- CIS 27D JAVA Advanced Features (5 units)
- CIS 68A Introduction to Linux & UNIX (5 units)
- CIS 68B Linux & UNIX Shell Programming (5 units)
- CIS 68E Programming in PERL (5 units)
- CNET 54A Network Fundamentals & the TCP/IP Protocol Suite (CCNA 1) (5 units)

**Microsoft Certified Application Developer C# Skills Certificate (20 units) NON-TRANSCRIPTABLE**

**Core Courses:**
- CIS 19A Introduction to Programming with C# (5 units)
- CIS 19D Developing Windows-Based Applications with C# (5 units)
- CIS 19W Developing Web Applications (5 units)
- CIS 54C Microsoft SQL Server Database Development & Design (5 units)

**Linux/UNIX Skills Certificate (20 units) NON-TRANSCRIPTABLE**

**Core Courses:**
- CIS 68A Introduction to Linux & UNIX (5 units)
  - CIS 68C Linux & UNIX System Administration (5 units)
  - CNET 54A Network Fundamentals & the TCP/IP Protocol Suite (CCNA 1) (5 units)

**Electives:** (10 units)
- CIS 27B Computer Science II: JAVA (5 units)
  - or CIS 15B Computer Science II: C++ (5 units)
- CIS 68E Programming in PERL (5 units)
- CIS 68K Introduction to Python Programming (5 units)

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*A minimum of 90 units required for the A.A./A.S. Degree, to include required courses, required electives, and graduation requirements, and these minimum proficiencies: ENGL 1A or ESLI 26, and MATH 105.

**FOOTNOTES:**
[66] Certificate completion will not appear on the student’s transcript.
[67] Certificate completion will not appear on the student’s transcript.
[68] Certificate completion will not appear on the student’s transcript.
CIS 68C2 Linux & UNIX Networking Administration (5 units)

CREATIVE WRITING

Program Type(s):
AA Degree; Certificate of Specialization

Units required for major: 34, certificate: 14–15

Associate Degree Requirements*
Core Courses: (34 units)
ENGL 1B Composition, Critical Reading & Thinking (5 units)
or ENGL 1BH Honors Composition, Critical Reading &
Thinking (5 units)
CRWR 6 Introduction to Creative Writing (5 units)
CRWR 39A Introduction to Short Fiction Writing (5 units)
CRWR 41A Poetry Writing (5 units)

And one of these:
CRWR 39B Advanced Short Fiction Writing (5 units)
CRWR 41B Advanced Poetry Writing (5 units)

And one of these:
CRWR 40 Introduction to Writing the Novel (5 units)
CRWR 60 Memoir Writing (5 units)

And one of these:
ENGL 3 Technical Writing (5 units)
ENGL 4 Journalism (4 units)
ENGL 5 Gay & Lesbian Literature (4 units)
ENGL 7 Native American Literature (4 units)
or ENGL 7H Honors Native American Literature (4 units)
ENGL 8 Children's Literature (4 units)
ENGL 11 Introduction to Poetry (4 units)
or ENGL 11H Honors Introduction to Poetry (4 units)
ENGL 12 African American Literature (4 units)
ENGL 14 Introduction to Contemporary Fiction (4 units)
ENGL 17 Introduction to Shakespeare (4 units)
ENGL 31 Latino/a Literature (4 units)
ENGL 40 Asian American Literature (4 units)
ENGL 41 Literature of Multicultural America (4 units)
ENGL 46A Survey of English Literature (4 units)
ENGL 46B Survey of English Literature (4 units)
ENGL 46C Survey of English Literature (4 units)
ENGL 46A Survey of Early American Literature: 1492–1864
(4 units)
ENGL 48B American Literature in the Gilded Age: 1865–1914
(4 units)
ENGL 48C Modern American Literature: 1914–Present (4 units)

Certificate information
At least two of the three courses for each certificate must be
completed at Foothill College.

Certificate of Specialization in Creative Writing: Genres
(15 units) NON-TRANSCRIPTABLE[69]
CRWR 6 Introduction to Creative Writing (5 units)
CRWR 39A Introduction to Short Fiction Writing (5 units)
CRWR 41A Poetry Writing (5 units)

Certificate of Specialization in Creative Writing: Fiction
(15 units) NON-TRANSCRIPTABLE[70]
CRWR 6 Introduction to Creative Writing (5 units)
CRWR 39A Introduction to Short Fiction Writing (5 units)
CRWR 39B Advanced Short Fiction Writing (5 units)

Certificate of Specialization in Creative Writing: Poetry
(15 units) NON-TRANSCRIPTABLE[71]
CRWR 6 Introduction to Creative Writing (5 units)
CRWR 41A Poetry Writing (5 units)
CRWR 41B Advanced Poetry Writing (5 units)

Certificate of Specialization in Reading & Writing: Poetry
(14 units) NON-TRANSCRIPTABLE[72]
CRWR 6 Introduction to Creative Writing (5 units)
CRWR 41A Poetry Writing (5 units)

and one of these:
ENGL 11 Introduction to Poetry (4 units)
or ENGL 11H Honors Introduction to Poetry (4 units)
ENGL 46A Survey of English Literature (4 units)
ENGL 46B Survey of English Literature (4 units)
ENGL 46C Survey of English Literature (4 units)
ENGL 48A Survey of Early American Literature: 1492–1864
(4 units)
ENGL 48B American Literature in the Guilded Age: 1865–1914
(4 units)
ENGL 48C Modern American Literature: 1914–Present (4 units)

DATABASE MANAGEMENT

Program Type(s):
AS Degree; Certificate of Achievement; Certificate of
Proficiency; Skills Certificate

Units required for major: 40, certificate: 15–40

* A minimum of 90 units required for the A.A./A.S. Degree, to include required courses, required electives,
and graduation requirements, and these minimum proficiencies: ENGL 1A or ESSL 26, and MATH 105.

Foothill College 2010–2011 www.foothill.edu
**Associate Degree Requirements**

**Core Courses:** (20 units)
- CIS S2A Introduction to Data Management Systems (5 units)
- CIS S2B Oracle SQL (5 units)
- CIS S2J Oracle: Programming with PL/SQL (5 units)
- CIS 68A Introduction to Linux & UNIX (5 units)

**Support Courses:** (20 units)
- Select one option:
  **Database Administration Option:**
  - CIS S2C Database Modeling & Relational Database Design (5 units)
  - CIS S2E Oracle Database Administration I (5 units)
  - CIS S2F Oracle Database Administration II (5 units)
  - CIS 52J Oracle: Programming with PL/SQL (5 units)
  - CIS 68A Introduction to Linux & UNIX (5 units)

  **Database Developer Option:**
  - CIS S2K Oracle Forms Developer: Build Internet Applications (5 units)
  - Select three courses:
    - CIS S2C Database Modeling & Relational Database Design (5 units)
    - CIS S2E Oracle Database Administration I (5 units)
    - CIS S2F Oracle Database Administration II (5 units)
  - CIS 62A Data Warehousing & Web Mining (5 units)

**Oracle Database Administration Certificate of Achievement**
- CIS S2A Introduction to Data Management Systems (5 units)
- CIS S2B Oracle SQL (5 units)
- CIS S2C Database Modeling & Relational Database Design (5 units)
- CIS S2E Oracle Database Administration I (5 units)
- CIS S2F Oracle Database Administration II (5 units)
- CIS S2J Oracle: Programming with PL/SQL (5 units)
- CIS 68A Introduction to Linux & UNIX (5 units)

**Oracle Database Developer Certificate of Achievement**
- CIS S2A Introduction to Data Management Systems (5 units)
- CIS S2B Oracle SQL (5 units)
- CIS S2J Oracle: Programming with PL/SQL (5 units)
- CIS S2K Oracle Forms Developer: Build Internet Applications (5 units)
- CIS 68A Introduction to Linux & UNIX (5 units)

**Select three:**
- CIS S2C Database Modeling & Relational Database Design (5 units)
- CIS S2E Oracle Database Administration I (5 units)
- CIS S2F Oracle Database Administration II (5 units)
- CIS 62A Data Warehousing & Web Mining (5 units)

**Oracle Database Administration Skills Certificate (15 units)**
- CIS S2B Oracle Database Administration II (5 units)

**Oracle Database Developer Skills Certificate (15 units)**
- CIS S2B Oracle: SQL (5 units)
- CIS S2J Oracle: Programming with PL/SQL (5 units)
- CIS S2K Oracle Forms Developer: Build Internet Applications (5 units)

**Open Source Databases Certificate of Proficiency (20 units)**
- CIS S2C Database Modeling & Relational Database Design (5 units)
- CIS S2N PHP & MySQL (5 units)
- CIS S2Q MySQL: In Depth (5 units)
- CIS S2P PHP Programming (5 units)

**Microsoft Certified IT Professional (MCITP) Database Administration Skills Certificate (15 units)**
- CIS S4C Microsoft SQL Server Database Development & Design (5 units)
- CIS S4D Microsoft SQL Server Implementation & Maintenance (5 units)
- CIS S4E Microsoft SQL Server Database Administration (5 units)

**DENTAL ASSISTING**

**Program Type(s):**
- A.S. Degree; Certificate of Achievement

Units required for major: 45, certificate: 45

**Associate Degree Requirements**

**Core Courses:** (45 units)

**Fall Quarter**
- DA 50 Orientation to Dental Assisting (2.5 units)
- DA 51A Introduction to Chairside Dental Assisting (5.5 units)
- DA 62A Dental Sciences (2 units)
- DA 53A Introduction to Radiography (3 units)
- DA 58 Specialty Practice Procedures (1 unit)
- DA 60A Dental Office Business Practices I (2 units)
- DA 73 Dental Assisting Supervised Clinic (3 units)

**Spring Quarter**
- DA 51C Advance Dental Assisting Skills (3 units)
- DA 53C Dental Radiography (1 unit)
- DA 62C Dental Sciences (2 units)

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*A minimum of 90 units required for the A.A./A.S. Degree, to include required courses, required electives, and graduation requirements, and these minimum proficiencies: ENGL 1A or ESLL 26, and MATH 105.

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A minimum of 90 units required for the A.A./A.S. Degree, to include required courses, required electives, and graduation requirements, and these minimum proficiencies: ENGL 1A or ESLL 26, and MATH 105.

**DENTAL HYGIENE**

**Program Type(s):**
- AS Degree

**Units required for major:** 124

**Associate Degree Requirements**

**Core Courses:** (124 units)

**First Year**
- **Summer Session**
  - D H 50 Orientation to Dental Hygiene (1 unit)
- **Fall Quarter**
  - D H 52A Oral Biology (3 units)
  - D H 53 Assessment Procedures in the Dental Hygiene Process (4 units)
  - D H 54 Preclinical Dental Hygiene (4 units)
  - D H 59 Survey of Dentistry (1 unit)
  - D H 60A Introduction to Dental Radiography (2 units)
  - BIOL 40A Human Anatomy & Physiology I (5 units)
  - BIOL 58 Fundamentals of Pharmacology (4 units)
  - PSYC 1 General Psychology (5 units)
- **Winter Quarter**
  - D H 52B Oral Biology (3 units)
  - D H 60B Dental Radiography (1 unit)
  - D H 61A Clinical Technique (6 units)
  - D H 62 Dental Materials (3 units)
  - D H 70 Dental Health Education (2 units)
  - BIOL 40B Human Anatomy & Physiology II (5 units)
- **Spring Quarter**
  - D H 55A Fundamentals of Pathology I (2 units)
  - D H 56 Applied Pharmacology in Dentistry (2 units)
  - D H 57A Periodontics (2 units)
  - D H 61B Introduction to Clinic (4 units)
  - D H 68A Radiographic Interpretation (2 unit)
  - BIOL 40C Human Anatomy & Physiology III (5 units)
  - BIOL 45 Introduction to Human Nutrition (4 units)

**Second Year**
- **Fall Quarter**
  - D H 55B Fundamentals of Pathology (2 units)
  - D H 57B Periodontics (2 units)
  - D H 60C Dental Radiography (.5 unit)
  - D H 62B Clinical Dental Hygiene (5 units)
  - D H 63C Community Dental Health (3 units)
  - D H 66 Soft Tissue Curettage (1 unit)
  - D H 75A Clinical Dental Hygiene Theory (1.5 units)
  - HLTH 21 Health Education (3 units)
- **Winter Quarter**
  - D H 60D Dental Radiography (.5 unit)
  - D H 62C Clinical Dental Hygiene (5 units)
  - D H 63D Community Dental Health II (3 units)
  - D H 67 Nitrous Oxide/Oxygen Analgesia (1 unit)
  - D H 75B Clinical Dental Hygiene Theory (1.5 units)

**DIAGNOSTIC MEDICAL SONOGRAPHY**

**Program Type(s):**
- AS Degree (pending state approval); Certificate of Achievement

**Units required for major:** 96, certificate: 96

**Core Courses:** (96 units)

**Fall Quarter**
- DMS 50A Diagnostic Medical Sonography Principles & Protocols (4 units)
- DMS 50B Sonography & Patient Care (2 units)
- DMS 60A Critique & Pathology I (2 units)
- DMS 72A Diagnostic Medical Sonography Procedures & Applications (8 units)
- **Winter Quarter**
  - DMS 51A Sectional Anatomy (3 units)
  - DMS 53A Diagnostic Medical Sonography I (2 units)
  - DMS 54A Gynecology (2 units)
  - DMS 60B Critique & Pathology II (1 unit)
  - DMS 70A Clinical Preceptorship I (8.5 units) (32 hrs/wk for 13 wks)
- **Spring Quarter**
  - DMS 52A Physical Principles of Diagnostic Medical Sonography I (2 units)
  - DMS 53B Diagnostic Medical Sonography II (2 units)
  - DMS 54B Gynecology & Obstetrics (2 units)
  - DMS 60C Critique & Pathology III (1 unit)
  - DMS 70B Clinical Preceptorship II (8 units) (32 hrs/wk for 12 wks)

*A minimum of 90 units required for the A.A./A.S. Degree, to include required courses, required electives, and graduation requirements, and these minimum proficiencies: ENGL 1A or ESLL 26, and MATH 105.
A minimum of 90 units required for the A.A./A.S. Degree, to include required courses, required electives, and graduation requirements, and these minimum proficiencies: ENGL 1A or ESLL 26, and MATH 105.

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Summer Session
DMS 52B Physical Principles of Diagnostic Medical Sonography II (2 units)
DMS 53C Diagnostic Medical Sonography III (2 units)
DMS 55A Obstetrics I (2 units)
DMS 60D Critique & Pathology IV (1 unit)
DMS 70C Clinical Preceptorship III (8.5 units) (32 hrs/wk for 13 wks)

Fall Quarter
DMS 56A Vascular Sonography (3 units)
DMS 55B Obstetrics II (2 units)
DMS 60E Critique & Pathology V (1 unit)
DMS 70D Clinical Preceptorship IV (8.5 units) (32 hrs/wk for 13 wks)
DMS 72E Diagnostic Medical Sonography Procedures & Applications (2 units)

Winter Quarter
DMS 52C Physical Principles of Diagnostic Medical Sonography III (2 units)
DMS 56B Advanced Applications of Vascular Technology (2 units)
DMS 60F Critique & Pathology VI (1 unit)
DMS 70E Clinical Preceptorship V (8.5 units) (32 hrs/wk for 13 wks)
DMS 80A Advanced Sonographic Principles (3 units)

ECONOMICS

Program Type(s):
AA Degree
Units required for major: 30

Associate Degree Requirements*
Core Courses: (18 units)
ECON 1A Principles of Macroeconomics (5 units)
ECON 1B Principles of Microeconomics (5 units)
ECON 9 Political Economy (4 units)
ECON 25 Introduction to the Global Economy (4 units)

Support Courses: (8 units)
BUSI 53 Survey of International Business (4 units)
GEOG 5 Introduction to Economic Geography (4 units)
or GEOG 10 World Regional Geography (4 units)
MATH 1A Calculus (5 units)

Elective Courses: (4 units)[78]
HIST 4A History of Western Civilization to 800 AD (4 units)
HIST 4B History of Western Civilization II (4 units)
HIST 4C History of Western Civilization 1789–Present (4 units)
or HIST 4CH Honors History of Western Civilization (4 units)
HIST 8 History of Latin American (4 units)
HIST 9 History of Contemporary Europe (4 units)
or HIST 9H Honors History of Contemporary Europe (4 units)
HIST 17A History of the United States to 1816 (4 units)
HIST 18 Introduction to Middle Eastern Civilization (4 units)
ENGL 1A or ENGL 1BH Honors Composition, Critical Reading & Thinking (5 units)
or ENGL 1BH Honors Composition, Critical Reading & Thinking (5 units)

[78] Students may also use courses listed under support courses for electives.

EMERGENCY MEDICAL TECHNICIAN (EMT)

Program Type(s):
Career Certificate NON-TRANSCRIPTABLE[79]
Emergency Medical Technician Career Certificate (7 units)

ENGINEERING

Program Type(s):
AS Degree
Units required for major: 68

Associate Degree Requirements*
Core Courses: (48 units)
CHEM 1A General Chemistry (5 units)
CHEM 1B General Chemistry (5 units)
CIS 15A Computer Science I: C++ (5 units)
MATH 1B Calculus (5 units)
MATH 1C Calculus (5 units)
MATH 1D Calculus (5 units)
PHYS 4A General Physics (Calculus) (6 units)
PHYS 4B General Physics (Calculus) (6 units)
PHYS 4C General Physics (Calculus) (6 units)

Support Courses: (10 units)
MATH 2A Differential Equations (5 units)
MATH 2B Linear Algebra (5 units)

Elective Courses: (10 units)
ENGR 10 Introduction to Engineering (4 units)
ENGR 35 Statics (5 units)
ENGR 45 Properties of Materials (5 units)
ENGR 37 Introduction to Circuit Analysis (5 units)
PHYS 4D General Physics (Calculus) (6 units)
NANO 51 Introduction to Nanotechnology (5 units)

ENGLISH

Program Type(s):
AA Degree; Certificate of Specialization
Units required for major: 33, certificate: 12

Associate Degree Requirements*
Core Courses: (33 units)
ENGL 1B Composition, Critical Reading & Thinking (5 units)
or ENGL 1BH Honors Composition, Critical Reading & Thinking (5 units)

[79] Certificate completion will not appear on the student’s transcript.
or ENGL 48A Survey of American Literature: 1492–1864 (4 units)
ENGL 48B American Literature in the Gilded Age: 1865–1914 (4 units)
ENGL 48C Modern American Literature: 1914–Present (4 units)

**And two of these:**
ENGL 8 Children’s Literature (4 units)
ENGL 11 Introduction to Poetry (4 units)
or ENGL 11H Honors Introduction to Poetry (4 units)
ENGL 14 Introduction to Contemporary Fiction (4 units)
ENGL 17 Introduction to Shakespeare (4 units)

**And one of these:**
ENGL 23 Modern English: Function & Grammar (4 units)
ENGL 25 Introduction to Descriptive & Historical Linguistics (4 units)
or ENGL 25H Honors Introduction to Descriptive & Historical Linguistics (4 units)
or LING 25 Introduction to Descriptive & Historical Linguistics (4 units)
or LING 25H Honors Introduction to Descriptive & Historical Linguistics (4 units)
ENGL 26 Language, Mind & Society (4 units)
or LING 26 Language, Mind & Society (4 units)

**And one of these:**
ENGL 5 Gay & Lesbian Literature (4 units)
ENGL 7 Native American Literature (4 units)
or ENGL 7H Honors Native American Literature (4 units)
ENGL 12 African American Literature (4 units)
ENGL 22 Women Writers (4 units)
ENGL 31 Latino/a Literature (4 units)
ENGL 40 Asian American Literature (4 units)
ENGL 41 Literature of Multicultural America (4 units)

**Support Courses:** (19 units)

**Optional/Recommended Courses**
ENGL 1C Advanced Composition (4 units)
or ENGL 1CH Honors Advanced Composition (4 units)
CRWR 6 Introduction to Creative Writing (5 units)
CRWR 39A Introduction to Short Fiction Writing (5 units)
CRWR 41A Poetry Writing (5 units)

**Certificate of Specialization in American Literature (12 units)**
**NON-TRANSCRIPTABLE**
ENGL 7 Native American Literature (4 units)
or ENGL 7H Honors Native American Literature (4 units)
ENGL 12 African American Literature (4 units)
ENGL 31 Latino/a Literature (4 units)
ENGL 40 Asian American Literature (4 units)
ENGL 41 Literature of Multicultural America (4 units)

**Certificate of Specialization in British Literature (12 units)**
**NON-TRANSCRIPTABLE**
ENGL 17 Introduction to Shakespeare (4 units)
ENGL 46A Survey of English Literature (4 units)
ENGL 46B Survey of English Literature (4 units)
ENGL 46C Survey of English Literature (4 units)

**Certificate of Specialization in Literary Genres (12 units)**
**NON-TRANSCRIPTABLE**
ENGL 8 Children’s Literature (4 units)
ENGL 11 Introduction to Poetry (4 units)
or ENGL 11H Honors Introduction to Poetry (4 units)
ENGL 14 Introduction to Contemporary Fiction (4 units)
ENGL 17 Introduction to Shakespeare (4 units)

**Certificate of Specialization in Multicultural Literature (12 units)**
**NON-TRANSCRIPTABLE**
ENGL 5 Gay & Lesbian Literature (4 units)
ENGL 7 Native American Literature (4 units)
or ENGL 7H Honors Native American Literature (4 units)
ENGL 12 African American Literature (4 units)
ENGL 22 Women Writers (4 units)
ENGL 31 Latino/a Literature (4 units)
ENGL 40 Asian American Literature (4 units)
ENGL 41 Literature of Multicultural America (4 units)

**Certificate of Specialization in Written Communication (12 units)**
**NON-TRANSCRIPTABLE**
ENGL 1A Composition & Reading (5 units)
or ENGL 1AH Honors Composition & Reading (5 units)
ENGL 1B Composition, Critical Reading & Thinking (5 units)
or ENGL 1BH Honors Composition, Critical Reading & Thinking (5 units)
ENGL 1C Advanced Composition (4 units)
or ENGL 1CH Honors Advanced Composition (4 units)
ENGL 3 Technical Writing (5 units)
ENGL 4 Journalism (4 units)
ENGL 23 Modern English: Function & Grammar (4 units)
ENGL 54 Professional Writing Skills (4 units)

**Certificate of Specialization in Linguistics (12 units)**
**NON-TRANSCRIPTABLE**
ENGL 23 Modern English: Function & Grammar (4 units)
ENGL 25 Introduction to Descriptive & Historical Linguistics (4 units)
or ENGL 25H Honors Introduction to Descriptive & Historical Linguistics (4 units)
or LING 25 Introduction to Descriptive & Historical Linguistics (4 units)
or LING 25H Honors Introduction to Descriptive & Historical Linguistics (4 units)

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* Certificate completion will not appear on the student’s transcript.

* A minimum of 90 units required for the A.A./A.S. Degree, to include required courses, required electives, and graduation requirements, and these minimum proficiencies: ENGL 1A or ESLL 26, and MATH 105.

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A minimum of 90 units required for the A.A./A.S. Degree, to include required courses, required electives, and graduation requirements, and these minimum proficiencies: ENGL 1A or ESLL 26, and MATH 105.

**Enterprise Networking**

Program Type(s):
AS Degree; Certificate of Proficiency

Units required for major: 55, certificate: 15–25

**Associate Degree Requirements***

Core Courses: (45 units)
- CIS 68A Introduction to Linux & UNIX (5 units)
- CIS 68C1 Linux & UNIX Systems Administration (5 units)
- CNET 54A Networking Fundamentals & the TCP/IP Protocol Suite (CCNA I) (5 units)
- CNET 54B Routing Protocols & Concepts (CCNA II) (5 units)
- CNET 75A Microsoft Windows Vista (5 units)
- CNET 75B Windows Server 2008 Network Infrastructure (5 units)
- CNET 56A Introduction to Network Security (5 units)
- CNET 56B Intrusion Detection, Awareness Analysis & Prevention (5 units)
- CNET 65A Wireless Network Administration (5 units)
  - or CNET 54N Fundamentals of CISCO Wireless LANs (5 units)

Support Courses: (10 units)
Select one of the following emphasis:
- **MCITP Emphasis (10 units)**
  - CNET 75C Windows Server 2008 Active Directory (5 units)
  - CNET 60F Microsoft Windows 2003 Exchange Server (5 units)
- **CCNA Emphasis (10 units)**
  - CNET 54C LAN Switching & Wireless Networks (CCNA III) (5 units)
  - CNET 54D WAN Technologies (CCNA IV) (5 units)
- **UNIX Emphasis (10 units)**
  - CIS 68B Linux & UNIX Shell Programming (5 units)
  - CIS 68C2 Linux & UNIX Networking Administration (5 units)
- **Wireless Emphasis (10 units)**
  - CNET 65B Wireless Network Security (5 units)
  - CNET 65C Wireless Network Analysis (5 units)
- **Security Emphasis (10 units)**
  - CNET 56F Linux & UNIX System Security (5 units)
- **MCITP Server Administrator Certificate of Proficiency (25 units)**
  - CNET 75A Microsoft Windows Vista (5 units)
  - CNET 75B Windows Server 2008 Network Infrastructure (5 units)
  - CNET 75C Windows Server 2008 Active Directory (5 units)
  - CNET 75E Windows Server 2008 Server Administrator (5 units)
  - CNET 60F Microsoft Windows 2003 Exchange Server (5 units)
- **MCITP Enterprise Administrator Certificate of Proficiency (25 units)**
  - CNET 75A Microsoft Windows Vista (5 units)

**Network Security Certificate of Proficiency (25 units)**
- CNET 54A Networking Fundamentals & the TCP/IP Protocol Suite (CCNA I) (5 units)
- CNET 56A Introduction to Network Security (5 units)
- CNET 56B Intrusion Detection, Awareness Analysis & Prevention (5 units)
- CNET 56F Linux & UNIX System Security (5 units)
  - or CNET 54L Network Security I, Firewalls, Access, Control & Identity Management (5 units)
- CNET 54M Cisco Network Security II: Virtual Private Networks, Intrusion Detection Systems & Intrusion Prevention Systems (5 units)

**Cisco Academy CCNA Certificate of Proficiency (20 units)**
- CNET 54A Networking Fundamentals & the TCP/IP Protocol Suite (CCNA I) (5 units)
- CNET 54B Routing Protocols & Concepts (CCNA II) (5 units)
- CNET 54C LAN Switching & Wireless Networks (CCNA III) (5 units)
- CNET 54D WAN Technologies (CCNA IV) (5 units)

**Cisco Academy CCNP Certificate of Proficiency (15 units)**
- CNET 54G Building Scalable CISCO Networks (CCNP I) (5 units)
- CNET 54H Implementing Secure Converged WANs (ISCW) (5 units)
- CNET 54I Building Multi-layer Switched Networks (5 units)

**Wireless Networking Certificate of Proficiency (20 units)**
- CNET 54A Networking Fundamentals & the TCP/IP Protocol Suite (CCNA I) (5 units)
- CNET 65A Wireless Network Administration (5 units)
  - or CNET 54N Fundamentals of CISCO Wireless LANs (5 units)
- CNET 65B Wireless Network Security (5 units)
- CNET 65C Wireless Network Analysis (5 units)

**MCDST Certificate of Proficiency (9 units)**
- CNET 75A Microsoft Windows Vista (5 units)
- CNET 119 Customer Service for IT Professionals (4 units)

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*Certificate completion will not appear on the student’s transcript.*

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### ENVIRONMENTAL HORTICULTURE & DESIGN

**Program Type(s):**
- A.S. Degree; Certificate of Achievement; Skills Certificate

**Units required for major:** 64, certificate: 45–65

**Associate Degree Requirements**

**Core Courses: (45 units)**
- **HORT 10 Environmental Horticulture & the Urban Landscape** (5 units)
- **HORT 50A Orientation to Environmental Horticulture** (4 units)
- **HORT 51A Plant Materials I** (3 units)
- **HORT 51B Plant Materials II** (3 units)
- **HORT 52A Horticultural Practices: Soils** (3 units)
- **HORT 52C Horticultural Practices: Plant Installation & Maintenance** (3 units)
- **HORT 54A Landscape Construction: General Practices** (4 units)
- **HORT 54B Landscape Construction: Technical Practices** (3 units)
- **HORT 54C Landscape Construction: Irrigation Practices** (3 units)
- **HORT 60A Landscape Design: Graphic Communication** (4 units)
- **HORT 60B Landscape Design: Theory** (3 units)
- **HORT 60C Landscape Design: Irrigation** (3 units)
- **HORT 80 Environmental Horticulture Skills** (2 units)

**Support Courses: (19–20 units)**

**Plant Material Specialization (2 units)**
- **HORT 51C Plant Materials: Annuals** (2 units)
- **HORT 51D Plant Materials: California Native Plants** (2 units)
- **HORT 51E Plant Materials: Ground Covers & Vines** (2 units)
- **HORT 51F Plant Materials: Bamboos & Palms** (2 units)
- **HORT 51H Plant Materials: Perennials & Annuals** (2 units)

**Career Focus Specialization (11 units)**
- **HORT 52B Horticultural Practices: Plant Propagation** (3 units)
- **HORT 52E Horticultural Practices: Greenhouse & Nursery Management** (3 units)
- **HORT 52G Horticultural Practices: Turfgrass Management** (3 units)
- **HORT 52H Horticultural Practices: Integrated Pest Management** (3 units)
- **HORT 54D Landscape Construction: Applied Practices** (2 units)
- **HORT 55A Green Industry Management: Business Practices** (3 units)
- **HORT 60D Landscape Design: Planting** (3 units)
- **HORT 60E Landscape Design: Computer Applications** (3 units)
- **HORT 60F Landscape Design: Process** (3 units)
- **HORT 60G Landscape Design: Intermediate Computer Applications** (3 units)

**Environmental Horticulture Skills (4 units)**
- **HORT 80 Environmental Horticulture Skills** (2 units)

**Short Course Specialization (2 units)**
- **HORT 90A Container Plantings in the Landscape** (1 unit)
- **HORT 90C Garden Ponds & Water Features** (1 unit)
- **HORT 90E Horticultural & Landscape Photography** (1 unit)
- **HORT 90F Landscape Design: Basic Principles** (1 unit)

**Certificate of Achievement (64 units)**
Awarded upon completion of the degree core and support courses. General education courses are not required.

**Skills Certificate (45 units) NON-TRANSCRIPTABLE**
Awarded upon completion of the core courses with a letter grade of C or better. General education courses are not required.

**HORT 80 Environmental Horticulture Skills** (2 units)

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### GENERAL ELECTRICIAN

**Program Type(s):**
- A.S. Degree; Career Certificate

**Units required for major:** 40, certificate: 18–32

**Associate Degree Requirements**

**Core Courses: (40 units)**
- **APEL 120 Orientation to the Electrical Trade** (4 units)
- **APEL 121 Electron Theory; Basic Blueprint Reading; DC Theory; National Electrical Code Introduction** (4 units)
- **APEL 122 Codeology; Test Equipment; Pipe Bending; Blueprints** (4 units)
- **APEL 123 AC Theory; Transformers; Intermediate National Electrical Code** (4 units)
- **APEL 124 DC/AC Theory Review; Electronics; Industrial Blueprints** (4 units)
- **APEL 125 NEC Grounding; Overcurrent Protection; Transformer Connections** (4 units)
- **APEL 126 Motors; Motor Control; Lighting Protection** (4 units)
- **APEL 127 Digital Electronics; Motor Speed Control; Advanced National Electrical Code** (4 units)
- **APEL 128 Programmable Logic Controllers; Low Voltage Systems & High Voltage Systems** (4 units)
- **APEL 129 National Electrical Code Review** (4 units)

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[93] This course must be repeated 2 times for a total of 4 units.
[94] This course must be repeated 2 times for a total of 4 units.
[95] This course must be repeated 2 times for a total of 4 units.
[96] Certificate completion will not appear on the student's transcript.
[97] This course must be repeated 2 times for a total of 4 units.
**Certificate information**

**Career Certificate: Inside Wireman (32 units)**

**NON-TRANSCRIPTABLE**

APEL 120 Orientation to the Electrical Trade (4 units)
APEL 121 Electron Theory; Basic Blueprint Reading; DC Theory; National Electrical Code Introductions (4 units)
APEL 122 Codeology; Test Equipment; Pipe Bending; Blueprints (4 units)
APEL 123 AC Theory; Transformers; Intermediate National Electrical Code (4 units)
APEL 124 DC/AC Theory Review; Electronics; Industrial Blueprints (4 units)
APEL 125 NEC Grounding; Overcurrent Protection; Transformer Connections (4 units)
APEL 126 Motors; Motor Control; Lighting Protection (4 units)
APEL 127 Digital Electronics; Motor Speed Control; Advanced National Electrical Code (4 units)

**Career Certificate: Residential Electrician (18 units)**

**NON-TRANSCRIPTABLE**

APEL 112 Residential Electrical Air Conditioning & Refrigeration; Telephone Systems (3 units)
APEL 135 Residential Electrical Orientation; Safety & Code Introduction (3 units)
APEL 136 Residential Electrical D/C Theory; Blueprint Reading (3 units)
APEL 137 Residential Electrical A/C Theory & Circuitry (3 units)
APEL 138 Residential Wiring Layout & Installation (3 units)

**GENERAL STUDIES: HUMANITIES**

**Program Type(s):**

**AA Degree**

Units required for major: 28

**Associate Degree Requirements**

**Core Courses: (8 units)**

HUMN 1A Humanities & the Modern Experience I (4 units)
HUMN 1B Humanities & the Modern Experience II (4 units)

**Support Courses: (20 units)**

Complete at least 4 units in four of the five categories.

**Art**

ART 1 Introduction to Art (4.5 units)
ART 2A History of Art: History of Western Art from Prehistory through Early Christianity (4.5 units)
ART 2AH Honors History of Art: History of Western Art from Prehistory through Early Christianity (4.5 units)
ART 2B History of Western Art from the Middle Ages to the Renaissance (4.5 units)

**Music**

MUS 1 Introduction to Music (4 units)
MUS 2A Great Composers & Music Masterpieces of Western Civilization (4 units)
MUS 2B Great Composers & Music Masterpieces of Western Civilization (4 units)
MUS 2C Great Composers & Music Masterpieces of Western Civilization (4 units)
MUS 2D World Music: Roots to Contemporary Global Fusion (4 units)
MUS 7 Contemporary Music Styles: Rock, Pop & Jazz (4 units)
MUS 7D Contemporary Music Styles: The Beatles in the Culture of Popular Music (4 units)

**Literature**

ENGL 5 Gay & Lesbian Literature (4 units)
ENGL 7 Native American Literature (4 units)
ENGL 7H Honors Native American Literature (4 units)
ENGL 8 Children’s Literature (4 units)
ENGL 11 Introduction to Poetry (4 units)
ENGL 11H Honors Introduction to Poetry (4 units)
ENGL 12 African American Literature (4 units)
ENGL 14 Introduction to Contemporary Fiction (4 units)
ENGL 17 Introduction to Shakespeare (4 units)
ENGL 22 Women Writers (4 units)
ENGL 31 Latino/a Literature (4 units)
ENGL 40 Asian American Literature (4 units)
ENGL 41 Literature of Multicultural America (4 units)
ENGL 42A Introduction to Dramatic Literature (4 units)
ENGL 42B Introduction to Dramatic Literature (4 units)
ENGL 42C Introduction to Dramatic Literature (4 units)
ENGL 46A Survey of English Literature (4 units)
ENGL 46B Survey of English Literature (4 units)
ENGL 46C Survey of English Literature (4 units)
ENGL 48A Survey of Early American Literature: 1492–1864 (4 units)
ENGL 48B American Literature in the Gilded Age: 1865–1914 (4 units)
ENGL 48C Modern American Literature: 1914–Present (4 units)
GERM 8 Post World War II Germany (4 units)
GERM 39 German Literature in Translation (4 units)

**Certificate completion will not appear on the student’s transcript.**

([98] [99] [100] Courses used to meet major requirements in these areas cannot be used to satisfy any general education requirements.)

*A minimum of 90 units required for the A.A./A.S. Degree, to include required courses, required electives, and graduation requirements, and these minimum proficiencies: ENGL 1A or ESLL 26, and MATH 105.*

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**Music**
- MUS 7E History of the Blues (4 units)
- MUS 8 Music of Multicultural America (4 units)
- MUS 11A Jazz & Swing (4 units)
- MUS 11B Funk, Fusion & Hip-Hop (4 units)
- MUS 11C Salsa & Latin Jazz (4 units)
- MUS 85A Music & Media: Edison to Hendrix (4 units)
- MUS 85B Music & Media: Hendrix to Hip-Hop (4 units)

**Philosophy**
- PHIL 8 Ethics (5 units)
- PHIL 11 Introduction to the Philosophy of Art (4 units)
- PHIL 20A History of Western Philosophy from Socrates through St. Thomas (4 units)
- PHIL 20B History of Western Philosophy from the Renaissance through Kant (4 units)
- PHIL 20C Contemporary Philosophy: 19th & 20th Century Thought (4 units)
- PHIL 22 Introduction to World Religions: The Search for Spiritual Meaning (4 units)
- PHIL 24 Comparative World Religions: East (4 units)
- PHIL 25 Comparative World Religions: West (4 units)

**Photography**
- PHOT 8 Photography of Multicultural America (4 units)
- PHOT 8H Honors Photography of Multicultural America (4 units)
- PHOT 10 History of Photography (4 units)
- PHOT 10H Honors History of Photography (4 units)
- PHOT 11 Contemporary Issues in Photography (4 units)
- PHOT 11H Honors Contemporary Issues in Photography (4 units)

**Theatre**
- THTR 1 Theatre Arts Appreciation (4 units)
- THTR 2A Introduction to Dramatic Literature (4 units)
- THTR 2B Introduction to Dramatic Literature (4 units)
- THTR 2C Introduction to Dramatic Literature (4 units)
- THTR 8 Multicultural Performing Arts in Modern America (4 units)
- THTR 61 The Theatre Live On-Stage (2 units)

**General Studies: Science**

**Program Type(s):**
- AS Degree

Units required for major: 40

**Associate Degree Requirements**

**Core Courses:** (40 units)[101]

Courses must represent all 5 categories listed below.

**Biology**

One class from Area A and one class from Area B required. At least one course in this area must include a laboratory.

**Area A:**
- BIOL 1C Evolution, Systematics & Ecology (6 units)
- BIOL 9 Environmental Biology (may be taken with 9L) (4 units)

**Area B:**
- BIOL 10 General Biology: Basic Principles (5 units)
- BIOL 14 Human Biology (5 units)

**Chemistry (5 units)**
- CHEM 1A General Chemistry (5 units)
- CHEM 1B General Chemistry (5 units)
- CHEM 1C General Chemistry & Qualitative Analysis (5 units)
- CHEM 12A Organic Chemistry (6 units)
- CHEM 12B Organic Chemistry (6 units)
- CHEM 12C Organic Chemistry (6 units)
- CHEM 25 Fundamentals of Chemistry (5 units)
- CHEM 30A Survey of Inorganic & Organic Chemistry (5 units)
- CHEM 30B Survey of Organic & Biochemistry (5 units)
- CHEM 34H Honors Institute Seminar in Chemistry (1 unit)

**Physics (5 units)**
- PHYS 2A General Physics (5 units)
- PHYS 2B General Physics (5 units)
- PHYS 2C General Physics (5 units)
- PHYS 4A General Physics (Calculus) (6 units)
- PHYS 4B General Physics (Calculus) (6 units)
- PHYS 4C General Physics (Calculus) (6 units)
- PHYS 4D General Physics (Calculus) (6 units)
- PHYS 6 Introductory Physics (5 units)
- PHYS 12 Introduction to Modern Physics (5 units)
- PHYS 34H Honors Institute Seminar in Physics (1 unit)

**Mathematics (5 units)**
- MATH 1A Calculus (5 units)
- MATH 1B Calculus (5 units)
- MATH 1C Calculus (5 units)
- MATH 1D Calculus (5 units)
- MATH 49 Precalculus (5 units)
- MATH 51 Trigonometry (5 units)
- MATH 10 Elementary Statistics (5 units)
- MATH 11 Finite Mathematics (5 units)
- MATH 22 Discrete Mathematics (5 units)
- MATH 44 Math for the Liberal Arts (5 units)
- MATH 12 Calculus for Business & Economics (5 units)
- MATH 2A Differential Equations (5 units)
- MATH 2B Linear Algebra (5 units)
- MATH 34H Honors Institute Seminar in Mathematics (1 unit)

[101] Courses used to meet major requirements in these areas cannot be used to satisfy any general education requirements.
Engineering/Computer Science/Astronomy (5 units)
ENGR 10 Introduction to Engineering (4 units)
ENGR 35 Statics (5 units)
ENGR 45 Properties of Materials (5 units)
ENGR 37 Introduction to Circuit Analysis (5 units)
ENGR 49 Engineering Profession (1 unit)
ENGR 34H Honors Institute Seminar in Engineering (1 unit)
CIS 1A Computer Science I: C++ (5 units)
CIS 1B Computer Science II: C++ (5 units)
CIS 1C Computer Science III: Data Structures & Algorithms C++ (5 units)
CIS 1D Designing with C++ Classes (5 units)
CIS 2A Programming in C (5 units)
CIS 2B Advanced Programming in C (5 units)
CIS 27A Computer Science I: JAVA (5 units)
CIS 27B Computer Science II: JAVA (5 units)
CIS 27C Computer Science III: Data Structures & Algorithms in JAVA (5 units)
CIS 27D JAVA Advanced Features (5 units)
CIS 27P JAVA for Programmers (5 units)
ASTR 10A General Astronomy: Solar System (5 units)
ASTR 10B General Astronomy: Star, Galaxies, Cosmology (5 units)
ASTR 10D Honors General Astronomy: Stars, Galaxies, Cosmology (5 units)
ASTR 10L Astronomy Laboratory (1 unit)
ASTR 34H Honors Institute Seminar in Astronomy (1 unit)

GENERAL STUDIES: SOCIAL SCIENCE

Program Type(s):
AA Degree
Units required for major: 30

Associate Degree Requirements*
Core Courses: (30 units)
Complete any combination of 30 units from at least five departments

Anthropology
ANTH 1 Introduction to Physical Anthropology (4 units)
ANTH 2A Cultural Anthropology (4 units)
ANTH 2B Patterns of Culture (4 units)
ANTH 3 Prehistory: The Search for Lost Civilizations (4 units)
ANTH 4 First Peoples of North America (4 units)
ANTH 5 Magic, Science & Religion (4 units)
ANTH 6 Peoples of Africa (4 units)
ANTH 8 Introduction to Archaeology (4 units)
ANTH 12 Applied Anthropology (4 units)

Economics
ECON 1A Principles of Macroeconomics (5 units)
ECON 1B Principles of Microeconomics (5 units)
ECON 9 Political Economy (4 units)
ECON 25 Introduction to Global Economy (4 units)

Sociology
SOC 1 Introduction to Sociology (5 units)
SOC 8 Popular Culture (4 units)
SOC 10 Introduction to Social Research (4 units)
SOC 15 Law & Society (4 units)
SOC 19 Alcohol & Drug Abuse (4 units)
SOC 20 Major Social Problems (4 units)
SOC 21 Psychology of Women: Sex & Gender Differences (4 units)
SOC 30 Social Psychology (4 units)
SOC 40 Aspects of Marriage & Family (4 units)

Psychology
PSYC 1 General Psychology (4 units)
PSYC 4 Introduction to Psychobiological (4 units)
PSYC 10 Introduction to Social Research (4 units)
PSYC 14 Childhood & Adolescence (4 units)
PSYC 21 Psychology of Women: Sex & Gender Differences (4 units)
PSYC 22 Psychology of Prejudice (4 units)
PSYC 25 Introduction to Abnormal Psychology (4 units)
PSYC 30 Social Psychology (4 units)
PSYC 33 Introduction to the Concepts of Personality (4 units)
PSYC 40 Human Development (4 units)
PSYC 49 Human Psychology (4 units)
PSYC 50 Psychology of Crisis (4 units)
PSYC 55 Psychology of Sports (4 units)

History
HIST 4A History of Western Civilization to 800 AD (4 units)
HIST 4B History of Western Civilization II (4 units)
HIST 4C History of Western Civilization 1789–Present (4 units)
or HIST 4CH Honors History of Western Civilization (4 units)
HIST 9 History of Contemporary Europe (4 units)
or HIST 9H Honors History of Contemporary Europe (4 units)
HIST 10 California: The Multicultural State (4 units)
HIST 17A History of the United States to 1816 (4 units)
HIST 17B History of the United States from 1812 to 1914 (4 units)
HIST 17C History of the United States from 1900 to Present (4 units)
HIST 18 Introduction to Middle Eastern Civilization (4 units)
HIST 20 History of Russia & the Soviet Union (4 units)

Political Science
POLI 1 Political Science: Introduction to American Government & Politics (5 units)
POLI 2 Comparative Government & Politics (4 units)
POLI 3 Introduction to Political Philosophy/Political Theory (4 units)
POLI 15 International Relations/World Politics (4 units)
or POLI 15H Honors International Relations/World Politics (4 units)

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 Geography
GEOG 1 Physical Geography (5 units)
GEOG 2 Human Geography (4 units)
GEOG 5 Introduction to Economic Geography (4 units)
GEOG 9 California Geography (4 units)
GEOG 10 World Regional Geography (4 units)

GEOGRAPHY
Program Type(s):
AA Degree; Certificate of Achievement; Career Certificate

Units required for major: 33, certificate: 20–36

Associate Degree Requirements*
Core Courses: (17 units)
GEOG 1 Physical Geography (5 units)
GEOG 2 Human Geography (4 units)
GEOG 5 Introduction to Economic Geography (4 units)
GEOG 10 World Regional Geography (4 units)

Support Courses: (8 units)
ANTH 2A Cultural Anthropology (4 units)
or ANTH 2B Patterns of Culture (4 units)
ECON 25 Introduction to the Global Economy (4 units)
GEOG 9 California Geography (4 units)
GEOG 12 Introduction to Geographic Information Systems (GIS) (4 units)
HIST 4A History of Western Civilization to 800 AD (4 units)
or HIST 4B History of Western Civilization II (4 units)
POLI 15 International Relations/World Politics (4 units)
or POLI 15H Honors International Relations/World Politics (4 units)

Elective Courses: (8 units)[102]
ANTH 6 Peoples of Africa (4 units)
HIST 8 History of Latin America (4 units)
HIST 9 History of Contemporary Europe (4 units)
or HIST 9H Honors History of Contemporary Europe (4 units)
HIST 18 Introduction to Middle Eastern Civilization (4 units)
HIST 20 History of Russia & the Soviet Union (4 units)
POLI 2 Comparative Government & Politics (4 units)
or POLI 2H Honors Comparative Government & Politics (4 units)

Certificate information
Request certificate information at bss.foothill.fhda.edu/
certificates.

Career Certificate in Geographic Information Systems (21 units) NON-TRANSIENTIBLE[103]

Required Courses: (15 units)
GEOG 12 Introduction to Geographic Information Systems (GIS) (4 units)
GEOG 52 Advanced Geographic Information Systems (GIS) (4 units)

[102] May also use courses listed under support courses for electives. May be taken only once for credit (either support or electives).
[103] Certificate completion will not appear on the student’s transcript.

GERONTOLOGY
Program Type(s):
Career Certificate

Units required for certificate: 25

Certificate information
Awarded upon completion of the core and support courses.

Career Certificate in Gerontology (25 units)
NON-TRANSIENTIBLE[104]

Core Courses: (18 units)
GERN 50 Sociology of Aging (3 units)
GERN 51 Psychology of Aging (3 units)
GERN 52 Health & Aging (3 units)
GERN 53 Practicum in Senior Services (3 units)
GERN 55 Issues in Death, Dying & Bereavement Across Cultures (3 units)
SPED 55 Geriatric Fitness Concepts (3 units)

Support Courses: (7 units)
GERN 54 Continuum of Care Options (3 units)
GERN 56 Aging & Diversity (3 units)
SPED 50 Introduction to Adaptive Fitness Techniques (3 units)
SPED 52 Positive Aging (3 units)
SPED 54 Principles of Therapeutic Exercise (3 units)

[104] Certificate completion will not appear on the student’s transcript.
SPED 56 Functional Aspects of Adaptive Fitness (3 units)
SPED 57 Working with Special Populations (3 units)
SPED 61 Introduction to Disabilities (4 units)
SPED 62 Psychological Aspects of Disability (4 units)
SPED 64 Disability & the Law (4 units)
SPED 66 Disability & Technology Access (4 units)

**Graphic & Interactive Design**

**Program Type(s):**
AA Degree; Certificate of Achievement; Skills Certificate

**Units required for major:** 59, certificate: 11–59

**Associate Degree Requirements**

**Core Courses:** (43 units)
- ART 4A Drawing I (3 units)
- ART 5A Basic Two-Dimensional Design (3 units)
- ART 20A Color (3 units)
- PHOT 1 Black & White Photography (4 units)
- or PHOT 5 Introduction to Photography (4 units)
- GID 70 Graphic Design Drawing (4 units)
- GID 1 History of Graphic Design (4 units)
- or ART 36 History of Graphic Design (4 units)
- GID 60 Careers in the Visual Arts (2 units)
- or VART 50 Careers in the Visual Arts (2 units)
- GID 50 Graphic Design Studio I (4 units)
- GID 51 Graphic Design Studio II (4 units)
- GID 52 Graphic Design Studio III (4 units)
- GID 54 Typography (4 units)
- GID 61 Portfolio (4 units)

**Elective Courses:** (16 units)
- GID 20 Digital Video Production I (4 units)
- or VART 20 Digital Video Production I (4 units)
- GID 30 Paper Arts I (4 units)
- GID 32 T-Shirt Design & Garment Printing (4 units)
- GID 38 Printmaking I (4 units)
- GID 40 Digital Printmaking (4 units)
- GID 42 Beginning Etching (3 units)
- GID 44 Beginning Relief Printmaking (3 units)
- GID 46 Beginning Screenprinting (3 units)
- or ART 39A Beginning Screenprinting (3 units)
- GID 56 Website Design (4 units)
- GID 62 Service Learning Projects (4 units)
- GID 64A Graphic & Interactive Design Experiential Internship (4 units)
- GID 64B GID Expanded Experiential Internship (6 units)
- GID 71 Storyboarding (4 units)
- GID 72 Cartooning (4 units)
- GID 74 Digital Art & Graphics (4 units)
- GID 76 Illustration & Digital Imaging (4 units)
- GID 80 Digital Sound, Video & Animation (4 units)
- or MUS 86 Introduction to Digital Sound, Video & Animation (4 units)
- or VART 86 Introduction to Digital Sound, Video & Animation (4 units)
- or VART 87 Motion Graphics (4 units)
- or MUS 86 Introduction to Digital Sound, Video & Animation (4 units)

**Certificate Information**

Complete GID 51 in preparation for skills certificate courses. See prerequisite information specific to each class.

**Certificate of Achievement (59 units)**
Awarded upon completion of the degree core and elective courses. General education courses are not required.

**Graphic Design Skill Certificate (12 units)**
NON-TRANSCRIPTABLE
- GID 50 Graphic Design Studio I (4 units)
- GID 51 Graphic Design Studio II (4 units)
- GID 52 Graphic Design Studio III (4 units)

**Motion Graphics Skill Certificate (12 units)**
NON-TRANSCRIPTABLE
- GID 71 Storyboarding (4 units)
- GID 80 Digital Sound, Video & Animation (4 units)
- or MUS 86 Introduction to Digital Sound, Video & Animation (4 units)
- or VART 86 Introduction to Digital Sound, Video & Animation (4 units)
- GID 84 Motion Graphics (4 units)
- or VART 87 Motion Graphics (4 units)

**Video Design Skill Certificate (12 units)**
NON-TRANSCRIPTABLE
- GID 20 Digital Video Production I (4 units)
- or VART 20 Digital Video Production I (4 units)
- GID 71 Storyboarding (4 units)
- GID 80 Digital Sound, Video & Animation (4 units)
- or MUS 86 Introduction to Digital Sound, Video & Animation (4 units)
- or VART 86 Introduction to Digital Sound, Video & Animation (4 units)

**Book Arts Skill Certificate (12 units)**
NON-TRANSCRIPTABLE
- GID 90 Book Arts I (4 units)
- GID 91 Book Arts II (4 units)
- GID 92 Letterpress Printing (4 units)

**Printmaking Skill Certificate (12 units)**
NON-TRANSCRIPTABLE
- GID 38 Printmaking I (4 units)

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**HISTORY**

**Program Type(s):**
- AA Degree

Units required for major: 36

**Associate Degree Requirements***

- **Core Courses:** (24 units)
  - HIST 4A History of Western Civilization to 800 AD (4 units)
  - HIST 4B History of Western Civilization II (4 units)
  - HIST 4C History of Western Civilization 1789 – Present (4 units) or HIST 4CH Honors History of Western Civilization (4 units)
  - HIST 17A History of the United States to 1816 (4 units)
  - HIST 17B History of the United States from 1812 to 1914 (4 units)
  - HIST 17C History of the United States from 1900 to the Present (4 units)

- **Support Courses:** (12 units)
  - HIST 8 History of Latin America (4 units)
  - HIST 9 History of Contemporary Europe (4 units) or HIST 9H Honors History of Contemporary Europe (4 units)
  - HIST 10 History of California: The Multicultural State (4 units)
  - HIST 15 History of Mexico (4 units)
  - HIST 16 Introduction to Ancient Rome (4 units) or HIST 16H Honors Introduction to Ancient Rome (4 units)

*Certificate completion will not appear on the student’s transcript.

**INFORMATICS**

**Program Type(s):**
- AS Degree; Certificate of Achievement; Skills Certificate

Units required for major: 66, certificate: 33–66

**Program Prerequisites:**
- CIS 61A Informatics (5 units)
- CIS 60 Introduction to Business Information Systems (5 units) or CIS 2 Computers & Society (5 units)
- or BUSI 91L Introduction to Business Information Processing (4 units)

**Associate Degree Requirements***

- **Core Courses:** (39 units)
  - CIS 52C Database Modeling & Relational Database Design (5 units)
  - CIS 52B Oracle SQL (5 units)
  - CIS 62A Data Warehousing & Web Mining (5 units)
  - CIS 63A1 Systems Analysis & Design (5 units)
  - CIS 63B Design & Analysis for Informatics Research (5 units)
  - COIN 78 Extensible Markup Language (XML) (5 units)
  - MATH 10 Elementary Statistics (5 units) or PSYC 10 Introduction to Social Research (4 units)
  - or SOC 10 Introduction to Social Research (4 units)

- **And one of the following:**
  - CIS 12A Fundamentals of Visual Basic.NET Programming (5 units)
  - CIS 15A Computer Science I: C++ (5 units)
  - CIS 19A Introduction to Programming with C# (5 units)
  - CIS 27A Computer Science I: JAVA (5 units)
  - CIS 68E Programming in PERL (5 units)

- **Support Courses:** (3 units)
  - Informatics Project: CIS 61Z Informatics Project (3.5 units) or CIS 93U Computer Information Systems Experiential Internship (~100 hours) (3 units)

**Certificate information**

English and math proficiencies are required for the certificates.

**Certificate of Achievement (66 units)**
Awarded upon completion of the program prerequisites, subject matter preparation, core courses and the informatics project. General education courses are not required.

**Skill Certificate in Informatics (33 units)**

**Program Prerequisites (9 units)**
- CIS 61A Informatics (5 units)

*Certificate completion will not appear on the student’s transcript.

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90
CIS 60 Introduction to Business Information Systems (5 units)  
or CIS 2 Computers & Society (5 units)  
or BUSI 91L Introduction to Business Information Processing (4 units)

And the following:
CIS 52C Database Modeling & Relational Database Design (5 units)  
CIS 62A Data Warehousing & Web Mining (5 units)  
CIS 63A1 Systems Analysis & Design (5 units)  
CIS 63B Design & Analysis for Informatics Research (5 units)  
MATH 10 Elementary Statistics (5 units)  
or PSYC 10 Introduction to Social Research (4 units)  
or SOC 10 Introduction to Social Research (4 units)

**INTERACTIVE & MULTIMEDIA TECHNOLOGIES**

**Program Type(s):**
AS Degree; Certificate of Achievement; Skills Certificate

Units required for major: 50, certificate: 20–50

**Associate Degree Requirements**

**Core Courses:** (35 units)
CAST 52A Introduction to Macromedia Flash (5 units)  
CAST 52B Advanced Macromedia Flash (5 units)  
CAST 70D 3D Modeling & Animation for Multimedia (4 units)  
CAST 70C Interactive Multimedia Project (4 units)  
COIN 51 Internet Technology & Applications: Introduction (5 units)  
GID 71 Storyboarding (4 units)  
GID 74 Digital Art & Graphics (4 units)  
GID 80 Digital Sound, Video & Animation (4 units)

**Support Courses:** (5 units)
CIS 1 Introduction to Computer Science (5 units)  
CIS 12A Introduction to Visual Basic.NET Programming (5 units)  
CIS 15A Computer Science I: C++ (5 units)  
CIS 27A Computer Science I: JAVA (5 units)  
COIN 70A Introduction to Programming Using JavaScript (5 units)  
or COIN 70B Using JavaScript (5 units)

**Elective Courses:** (10 units)
CAST 52B Advanced Macromedia Flash (5 units)  
CAST 92A Introduction to Adobe Photoshop (4 units)  
CAST 93A PowerPoint: Effective Presentations (4 units)  
CIS 2 Computers & Society (5 units)  
COIN 61 Publishing on the Web Using HTML/XHTML (5 units)  
GID 20 Digital Video Production I (4 units)  
GID 50 Graphic Design Studio I (4 units)  
GID 84 Motion Graphics (4 units)  
GID 56 Website Design (4 units)

**Interactive & Multimedia Technologies: Certificate of Achievement (50 units)**
Awarded upon completion of the core, support and elective courses. The English and math proficiencies are required but general education courses are not required.

**Interactive & Multimedia Technologies Skills Certificate**
(23 units) NON-TRANSSCRIPTABLE
CAST 52A Introduction to Macromedia Flash (5 units)  
CAST 70B Multimedia Design & Authoring (4 units)  
GID 60 Careers in the Visual Arts (2 units)  
GID 71 Storyboarding (4 units)  
GID 74 Digital Art & Graphics (4 units)  
GID 80 Digital Sound, Video & Animation (4 units)

**Web-Based Multimedia Skills Certificate**
(20 units) NON-TRANSSCRIPTABLE
CAST 52A Introduction to Macromedia Flash (5 units)  
CAST 52B Advanced Macromedia Flash (5 units)  
COIN 61 Publishing on the Web Using HTML/XHTML (5 units)  
COIN 76 Web Publishing Tools: Multimedia (5 units)

**INTERNET TECHNOLOGY**

**Program Type(s):**
AS Degree; Certificate of Achievement; Certificate of Proficiency; Skills Certificate

Units required for major: 42, certificate: 19–42

**Associate Degree Requirements**

**Core Courses:** (35–42 units)
COIN 56 E-Business (5 units)  
COIN 58 Electronic Commerce Projects (5 units)  
COIN 61 Publishing on the Web Using HTML/XHTML (5 units)  
COIN 63 Advanced Topics in Web Publishing (5 units)  
CNET 50 Introduction to Computer Networking (5 units)

And three from the following:
CIS 60 Introduction to Business Information Systems (5 units)  
BUSI 22 Principles of Business (4 units)  
BUSI 53 Survey of International Business (4 units)  
BUSI 95 Entrepreneurship: Small Business Management (4 units)

**Web Administration Major Concentration:** (35 units)
CIS 52A Introduction to Data Management Systems (5 units)  
CIS 52N PHP & MySQL (5 units)  
CIS 68A Introduction to Linux & UNIX (5 units)  
CIS 68C1 Linux & UNIX System Administration (5 units)  
CIS 52P PHP Programming (5 units)  
COIN 61 Publishing on the Web Using HTML/XHTML (5 units)  
COIN 66 Apache Web Server Management (5 units)

**Web Programming Major Concentration:** (40 units)
CIS 27A Computer Science I: JAVA (5 units)  
CIS 68A Introduction to Linux & UNIX (5 units)  
CIS 52P PHP Programming (5 units)  
COIN 61 Publishing on the Web Using HTML/XHTML (5 units)  
COIN 63 Advanced Topics in Web Publishing (5 units)  
COIN 70B Using JavaScript (5 units)

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[116] Certificate completion will not appear on the student’s transcript.  
[117] Certificate completion will not appear on the student’s transcript.
COIN 78 eXtensible Markup Language (XML) (5 units)
CIS 52N PHP & MySQL (5 units)

Certificate Information
All certificates require: English proficiency: ENGL 110, ESLL 25, or equivalent; mathematics proficiency: MATH 220 or equivalent; prerequisite: COIN 51 or equivalent; coursework as outlined below for the four major areas.

Certificate of Achievement (35–42 units)
Awarded upon completion of the major concentrations of electronic business, Web administration or Web programming. General education courses are not required.

AJAX Certificate of Proficiency (35 units)
NON-TRANSCRIPTABLE\[118\]
COIN 61 Publishing on the Web Using HTML/XHTML (5 units)
COIN 63 Advanced Topics in Web Publishing (5 units)
COIN 65 Using Cascading Style Sheets for Design (5 units)
COIN 70A Introduction to Programming Using JavaScript (5 units)
or COIN 70B Using JavaScript (5 units)
COIN 71 Application Software Development with AJAX (5 units)
COIN 78 Extensible Markup Language (XML) (5 units)

And one from the following:
CIS 12A Fundamentals of Visual Basic.NET Programming (5 units)
CIS 15A Computer Science I: C++ (5 units)
CIS 27A Computer Science I: JAVA (5 units)
CIS 78 Software Engineering (5 units)

Web Publishing: Dreamweaver Certificate of Proficiency (24 units) NON-TRANSCRIPTABLE\[119\]
COIN 61 Publishing on the Web Using HTML/XHTML (5 units)
COIN 74A Web Publishing Tools: Dreamweaver Basics (5 units)
COIN 74B Web Publishing Tools: Dreamweaver Interactive (5 units)
COIN 74C Web Publishing Tools: Dreamweaver Interactive II (5 units)

And one from the following:
COIN 63 Advanced Topics in Web Publishing (5 units)
COIN 65 Using Cascading Style Sheets for Design (5 units)
COIN 82 Images for the Web (4 units)

Web Development Certificate of Proficiency (20 units) NON-TRANSCRIPTABLE\[120\]
COIN 61 Publishing on the Web Using HTML/XHTML (5 units)
COIN 63 Advanced Topics in Web Publishing (5 units)
COIN 65 Using Cascading Style Sheets for Design (5 units)
COIN 70A Introduction to Programming Using JavaScript (5 units)

Web-Based Multimedia Skill Certificate (19 units) NON-TRANSCRIPTABLE\[121\]
CAST 52A Introduction to Macromedia Flash (5 units)
CAST 52B Advanced Macromedia Flash (5 units)
COIN 61 Publishing on the Web Using HTML/XHTML (5 units)
COIN 76 Web Publishing Tools: Multimedia (5 units)
or GID 80 Digital Sound, Video & Animation (4 units)

JAVA

Program Type(s):
AA Degree; Career Certificate; Certificate of Specialization

Units required for major: 30, certificate: 20–52

Associate Degree Requirements*
Core Courses: (30 units)\[124\]
Select any 30 units from the following:
JAPN 1 Elementary Japanese I (5 units)
JAPN 2 Elementary Japanese II (5 units)
JAPN 3 Elementary Japanese III (5 units)
JAPN 4 Intermediate Japanese I (5 units)
JAPN 5 Intermediate Japanese II (5 units)
JAPN 6 Intermediate Japanese III (5 units)
JAPN 13A Intermediate Conversation I (4 units)
JAPN 13B Intermediate Conversation II (4 units)
JAPN 14A Advanced Conversation I (4 units)
JAPN 14B Advanced Conversation II (4 units)
JAPN 25A Advanced Composition & Reading (4 units)
JAPN 25B Advanced Composition & Reading (4 units)
JAPN 33 Introduction to Japanese Culture (4 units)

\[118\] Certificate completion will not appear on the student's transcript.
\[119\] Certificate completion will not appear on the student’s transcript.
\[120\] Certificate completion will not appear on the student’s transcript.
\[121\] Certificate completion will not appear on the student’s transcript.
\[122\] Certificate completion will not appear on the student’s transcript.
\[123\] Certificate completion will not appear on the student’s transcript.
\[124\] Students who can demonstrate proficiency equivalent to 1 year of college Japanese, JAPN 1, 2 and 3 can be eliminated from the core courses. However, the intermediate and advanced courses must be taken in residence at Foothill College.
Certificate of Specialization in Japanese Conversation & Culture (20 units)\textsuperscript{[126] NON-TRANSCRIPTABLE}\textsuperscript{[127]}
- JAPN 13A Intermediate Conversation I (4 units)
- JAPN 13B Intermediate Conversation II (4 units)
- JAPN 14A Advanced Conversation I (4 units)
- JAPN 14B Advanced Conversation II (4 units)
- JAPN 33 Introduction to Japanese Culture (4 units)

- Select any 30 units from the following:
  - JAPN 1 Elementary Japanese I (5 units)
  - JAPN 2 Elementary Japanese II (5 units)
  - JAPN 3 Elementary Japanese III (5 units)
  - JAPN 4 Intermediate Japanese I (5 units)
  - JAPN 5 Intermediate Japanese II (5 units)
  - JAPN 6 Intermediate Japanese III (5 units)
  - JAPN 13A Intermediate Conversation I (4 units)
  - JAPN 13B Intermediate Conversation II (4 units)
  - JAPN 14A Advanced Conversation I (4 units)
  - JAPN 14B Advanced Conversation II (4 units)
  - JAPN 25A Advanced Composition & Reading I (4 units)
  - JAPN 25B Advanced Composition & Reading II (4 units)
  - JAPN 33 Introduction to Japanese Culture (4 units)

Career Certificate in Japanese Tutoring (52 units)\textsuperscript{[129] NON-TRANSCRIPTABLE}\textsuperscript{[130]}
- JAPN 1 Elementary Japanese I (5 units)
- JAPN 2 Elementary Japanese II (5 units)
- JAPN 3 Elementary Japanese III (5 units)
- JAPN 4 Intermediate Japanese I (5 units)
- JAPN 5 Intermediate Japanese II (5 units)
- JAPN 6 Intermediate Japanese III (5 units)
- JAPN 13A Intermediate Conversation I (4 units)
- JAPN 13B Intermediate Conversation II (4 units)
- JAPN 14A Advanced Conversation I (4 units)
- JAPN 33 Introduction to Japanese Culture (4 units)

**LAW & SOCIETY (PRE-LAW)**

**Program Type(s):**
- AA Degree

**Associate Degree Requirements**\textsuperscript{*}

**Core Courses:** (22 units)
- BUSI 18 Business Law I (5 units)
- PHIL 2 Introduction to Social & Political Philosophy (4 units)
- POLI 2 Comparative Government & Politics (4 units)
- or POLI 2H Honors Comparative Government & Politics (4 units)
- SOC 1 Introduction to Sociology (5 units)
- SOC 15 Law & Society (4 units)

**Support Courses:** (9 units)
- PHIL 8 Ethics (5 units)
- POLI 1 Political Science: Introduction to American Government & Politics (5 units)
- POLI 15 International Relations/World Politics (4 units)
- or POLI 15H Honors International Relations/World Politics (4 units)
- SOC 40 Aspects of Marriage & Family (4 units)
- BUSI 19 Business Law II (4 units)

**Elective Courses:** (4 units)\textsuperscript{[131]}
- BUSI 53 Survey of International Business (4 units)
- ECON 1A Principles of Macroeconomics (5 units)
- or ECON 1B Principles of Microeconomics (5 units)
- ECON 25 Introduction to the Global Economy (4 units)
- HIST 4A History of Western Civilization to 800 AD (4 units)

**Certificate of Proficiency in Leadership & Service (26 units)**
**Program Type(s):**
- Certificate of Proficiency NON-TRANSCRIPTABLE\textsuperscript{[132]}

**Units required for certificate:** 26

**Certificate information**\textsuperscript{[133]}
- Requires English proficiency: ENGL 1A, ESLL 26 or equivalent; mathematics proficiency: MATH 105 or equivalent; (or the equivalent placement test scores);
- Certificate completion will not appear on the student’s transcript.

**Certificate in Leadership & Service (26 units)**
**Program Type(s):**
- Certificate of Proficiency in Leadership & Service NON-TRANSCRIPTABLE\textsuperscript{[134]}

**Core Courses:** (9 units)
- CNSL 86 Introduction to Leadership (1 unit)
- CNSL 87 Leadership: Theories & Practices (1 unit)
- CNSL 88 Leadership: Theories, Styles & Realities (1 unit)
- CNSL 89 Advanced Leadership: Theories, Styles & Realities (1 unit)
- SOC 79 Introduction to Community Service (1 unit)

**Support Courses:** (17 units)
- Select one course from each category; and one additional course from the category of your choice

\textsuperscript{*}A minimum of 90 units required for the A.A./A.S. Degree, to include required courses, required electives, and graduation requirements, and these minimum proficiencies: ENGL 1A or ESLL 26, and MATH 105.
**Communication**  
COMM 1A Public Speaking (5 units)  
  or COMM 1AH Honors Public Speaking (5 units)  
COMM 2 Interpersonal Communication (5 units)  
COMM 4 Group Discussion (5 units)  
COMM 10 Gender, Communication & Culture (5 units)  
COMM 12 Intercultural Communication (5 units)

**Cultural Competency**  
ANTH 2A Cultural Anthropology (4 units)  
ENGL 5 Gay & Lesbian Literature (4 units)  
ENGL 12 African American Literature (4 units)  
ENGL 31 Latino/a Literature (4 units)  
ENGL 40 Asian American Literature (4 units)  
HIST 10 History of California: The Multicultural State (4 units)  
MUS 8 Music of Multicultural America (4 units)  
  or MUS 8H Honors Music of Multicultural America (4 units)  
PHOT 8 Photography of Multicultural America (4 units)  
  or PHOT 8H Honors Photography of Multicultural America (4 units)

**Political Science**  
POLI 1 Political Science: Introduction to American Government & Politics (5 units)  
POLI 2 Comparative Government & Politics (4 units)  
  or POLI 2H Honors Comparative Government & Politics (4 units)  
POLI 3 Introduction to Political Philosophy/Political Theory (5 units)  
  or POLI 3H Honors Introduction to Political Philosophy/Political Theory (5 units)  
POLI 9 Political Economy (4 units)  
  or POLI 9H Honors Political Economy (4 units)  
POLI 15 International Relations/World Politics (4 units)  
  or POLI 15H Honors International Relations/World Politics (4 units)

**MATHMATICS**  
**Program Type(s):**  
**A.S Degree**  
Units required for major: 45

**Associate Degree Requirements**  
**Core Courses:** (45 units)  
MATH 1A Calculus (5 units)  
MATH 1B Calculus (5 units)  
MATH 1C Calculus (5 units)  
MATH 1D Calculus (5 units)  
MATH 22 Discrete Mathematics (5 units)  
MATH 2A Differential Equations (5 units)  
MATH 2B Linear Algebra (5 units)  
**And two courses selected from:**  
PHYS 2A General Physics (5 units)  
PHYS 2B General Physics (5 units)  
PHYS 2C General Physics (5 units)  
  or TWO courses selected from:  
PHYS 4A General Physics (Calculus) (6 units)  
PHYS 4B General Physics (Calculus) (6 units)  
PHYS 4C General Physics (Calculus) (6 units)  
  or TWO courses selected from:  
CHEM 1A General Chemistry (5 units)  
CHEM 1B General Chemistry (5 units)  
CHEM 1C General Chemistry & Qualitative Analysis (5 units)  
  or TWO courses selected from:  
CIS 15A Computer Science I: C++ (5 units)  
CIS 15B Computer Science II: C++ (5 units)  
CIS 15C Computer Science III: Data Structures & Algorithms C++ (5 units)  
CIS 27A Computer Science I: JAVA (5 units)  
CIS 27B Computer Science II: JAVA (5 units)  
CIS 27C Computer Science III: Data Structures & Algorithms JAVA (5 units)

**Optional Recommended Courses**  
MATH 10 Elementary Statistics (5 units)  
MATH 11 Finite Mathematics (5 units)

**MUSIC: GENERAL**  
**Program Type(s):**  
**AA Degree**  
Units required for major: 43

**Associate Degree Requirements**  
**Core Courses:** (35 units)  
MUS 2A Great Composers & Music Masterpieces of Western Civilization (4 units)  
MUS 2B Great Composers & Music Masterpieces of Western Civilization (4 units)  
MUS 2C Great Composers & Music Masterpieces of Western Civilization (4 units)  
MUS 3A Beginning Music Theory, Literature & Composition (5 units)  
MUS 3B Intermediate Music Theory, Literature & Composition (5 units)  
MUS 3C Advanced Music Theory, Literature & Composition (5 units)  
MUS 12A Beginning Class Piano (2 units)  
  or MUS 12B Intermediate Class Piano (2 units)  
  or MUS 12C Advanced Class Piano (2 units)  
  or MUS 12D Piano Repertoire (2 units)  
MUS 41 Live Music Performance Workshop (2 units)\(^{[135]}\)

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\[^{[135]}\] Must be taken three times for a total of 6 units

*A minimum of 90 units required for the A.A./A.S. Degree, to include required courses, required electives, and graduation requirements, and these minimum proficiencies: ENGL 1A or ESLL 26, and MATH 105.
A minimum of 90 units required for the A.A./A.S. Degree, to include required courses, required electives, and graduation requirements, and these minimum proficiencies: ENGL 1A or ESLI 26, and MATH 105.

Elective Courses: (8 units)
MUS 1 Introduction to Music (4 units)
MUS 2D World Music: Roots to Contemporary Global Fusion (4 units)
MUS 7 Contemporary Music Styles: Rock, Pop & Jazz (4 units)
MUS 7D Contemporary Music Styles: The Beatles in the Culture of Popular Music (4 units)
MUS 7E History of the Blues (4 units)
MUS 8 Music of Multicultural America (4 units)
MUS 8H Honors Music of Multicultural America (4 units)
MUS 10 Music Fundamentals (4 units)
MUS 12A Beginning Class Piano (2 units)
or MUS 12B Intermediate Class Piano (2 units)
or MUS 12C Advanced Class Piano (2 units)
or MUS 12D Piano Repertoire (2 units)
MUS 13A Class Voice I (1 unit)
or MUS 13B Class Voice II (1 unit)
or MUS 13C Class Voice III (1 unit)
MUS 14A Beginning Classical Guitar (2 units)
or MUS 14B Intermediate Classical Guitar (2 units)
or MUS 14C Advanced Classical Guitar (2 units)
MUS 15A Beginning Folk Guitar (2 units)
or MUS 15B Intermediate Folk Guitar (2 units)
or MUS 15C Advanced Folk Guitar (2 units)
MUS 35 Special Projects In Music (2 units)
MUSP 21 College Chorale (2 units)
MUSP 24 Gospel Chorus (2 units)
MUSP 26 Advanced Women’s Chorus (2 units)
MUSP 27 Renaissance Vocal Ensemble (2 units)
MUSP 30 College Band (2 units)
MUSP 31 Concert Band (2 units)
MUSP 32 Symphonic Wind Ensemble (2 units)
MUSP 33 Evening Jazz Ensemble (2 units)
MUSP 34 Repertory Jazz Ensemble (2 units)
MUSP 35 Stage Band (2 units)
MUSP 36 Jazz Laboratory Band (2 units)
MUSP 37 String Orchestra (2 units)
MUSP 38 Chamber Orchestra (2 units)
MUSP 39 College Orchestra (2 units)
MUSP 40 Symphony Orchestra (2 units)

MUS 85A Music & Media: Edison to Hendrix (4 units)
or MUS 85B Music & Media: Hendrix to Hip-Hop (4 units)
MUS 66A Introduction to Digital Audio: Pro Tools (4 units)
or MUS 66B Introduction to Digital Audio: Reason & Pro Tools (4 units)
MUS 80A Recording Studio Basics (4 units)
or MUS 60A Producing in the Home Studio I (4 units)
MUS 81A Audio Recording & Production (4 units)
or MUS 60B Producing in the Home Studio II (4 units)
MUS 81B Sound Design for Film & Video (3.5 units)
MUS 81C Mixing & Mastering With Pro Tools (4 units)
MUS 82A Pro Tools 101: Introduction to Pro Tools (4 units)

Support Courses: (12 units)
Select any 12 units from the following:
MUS 2D World Music: Roots to Contemporary Global Fusion (4 units)
MUS 10 Music Fundamentals (4 units)
MUS 11A Jazz & Swing (4 units)
MUS 11B Funk, Fusion & Hip-Hop (4 units)
MUS 11C Salsa & Latin Jazz (4 units)
MUS 50A Music Business (4 units)
MUS 50B Entertainment Law & New Media (4 units)
MUS 58A Songwriter’s Workshop I (3.5 units)
MUS 58B Songwriter’s Workshop II (3.5 units)
MUS 58C Songwriter’s Workshop III (4 units)
MUS 60A Producing in the Home Studio I (4 units)
MUS 60B Producing in the Home Studio II (4 units)
MUS 62 Sound Reinforcement & Live Recording (4 units)
MUS 81B Sound Design For Film & Video (4 units)
MUS 81D Pro Tools & Plug-Ins I (4 units)
MUS 81E Pro Tools & Plug-Ins II (4 units)
MUS 82B Pro Tools 110: Essentials of Pro Tools (4 units)
MUS 82C Pro Tools 201: Pro Tools Production Essentials (4 units)
MUS 85A Music & Media: Edison to Hendrix (4 units)
MUS 85B Music & Media: Hendrix to Hip-Hop (4 units)
MUS 86 Introduction to Digital Sound, Video & Animation (4 units)
MUS 41 Live Music Performance Workshop (2 units)
F A 1 Introduction to Popular Culture (4 units)
F A 2 Popular Culture & U. S. History (4 units)
GID 56 Website Design (4 units)
GID 80 Digital Sound, Video & Animation (4 units)
PHOT 65A Digital Photography I (4 units)
RAD 90A News & Information Production I (3 units)
RAD 91B Radio Station Sales & Marketing II (3 units)
RAD 93A Music Industry Relations & Engineering I (3 units)
VART 1 Introduction to Film Studies (4 units)
VART 3 American Cinema (4 units)
VART 15 Web Video (4 units)

Certificate information
All courses pertaining to the certificate must be taken for a letter grade. A cumulative GPA of 2.8 or higher is required.

Program Type(s):
AA Degree; Certificate of Achievement
may be transferrable to a 4-year university.

Units required for major: 47.5, certificate: 35.5–36

Associate Degree Requirements*

Core Courses: (35.5 units)
MUS 50A Music Business (4 units)
or MUS 50B Entertainment Law & New Media (4 units)
MUS 11A Jazz & Swing (4 units)
or MUS 11B Funk, Fusion & Hip-Hop (4 units)

MUSP 26 Advanced Women’s Chorus (2 units)
MUSP 27 Renaissance Vocal Ensemble (2 units)
MUSP 30 College Band (2 units)
MUSP 31 Concert Band (2 units)
MUSP 32 Symphonic Wind Ensemble (2 units)
MUSP 33 Evening Jazz Ensemble (2 units)
MUSP 34 Repertory Jazz Ensemble (2 units)
MUSP 35 Stage Band (2 units)
MUSP 36 Jazz Laboratory Band (2 units)
MUSP 37 String Orchestra (2 units)
MUSP 38 Chamber Orchestra (2 units)
MUSP 39 College Orchestra (2 units)
MUSP 40 Symphony Orchestra (2 units)

MUSIC TECHNOLOGY

Program Type(s):
AA Degree; Certificate of Achievement
may be transferrable to a 4-year university.

Units required for major: 47.5, certificate: 35.5–36

Associate Degree Requirements*

Core Courses: (35.5 units)
MUS 50A Music Business (4 units)
or MUS 50B Entertainment Law & New Media (4 units)
MUS 11A Jazz & Swing (4 units)
or MUS 11B Funk, Fusion & Hip-Hop (4 units)

Certificate information
All courses pertaining to the certificate must be taken for a letter grade. A cumulative GPA of 2.8 or higher is required.

*Minimum of 90 units required for the A.A./A.S. Degree, to include required courses, required electives, and graduation requirements, and these minimum proficiencies: ENGL 1A or ESLI 26, and MATH 105.
A minimum of 90 units required for the A.A./A.S. Degree, to include required courses, required electives, and graduation requirements, and these minimum proficiencies: ENGL 1A or ESLL 26, and MATH 105.

**Certificate of Achievement in Music Technology (35.5 units)**
Awarded after completion of the core courses. General education courses are not required.

**Certificate of Achievement in Pro Tools (36 units)**
Awarded after completion of the following courses. General education courses are not required.

- MUS 66A: Introduction to Digital Audio: Pro Tools (4 units)
- MUS 66B: Introduction to Digital Audio: Reason & Pro Tools (4 units)
- MUS 80A: Recording Studio Basics (4 units)
- MUS 81A: Audio Recording & Production (4 units)
- MUS 81C: Mixing & Mastering with Pro Tools (4 units)
- MUS 81D: Pro Tools & Plug-Ins I (4 units)
- MUS 81E: Pro Tools & Plug-Ins II (4 units)
- MUS 82A: Pro Tools 101: Introduction to Pro Tools (4 units)
- MUS 82B: Pro Tools 110: Essentials of Pro Tools (4 units)

**NANOSCIENCE**

**Program Type(s):**
AS Degree; Certificate of Achievement; Certificate of Proficiency

Units required for major: 47–68, certificate: 15–40

**Associate Degree Requirements**

**Core Courses: (47–55 units)**

**Nanobiotechnology Prerequisite Skills:**
- PHYS 10 or equivalent
- BIOL 10 or equivalent

**Nanobiotechnology Core Courses: 47 Units**

- BTEC 51A: Cell Biology for Biotechnology (3 units)
- BTEC 51AL: Cell Biology Laboratory for Biotechnology (5.5 units)
- BTEC 52A: Molecular Biology for Biotechnology (3 units)
- BTEC 52AL: Molecular Biology Laboratory for Biotechnology (5.5 units)
- CHEM 30A: Survey of Inorganic & Organic Chemistry (5 units)
- CHEM 30B: Survey of Organic & Biochemistry (5 units)
- NANO 51: Introduction to Nanotechnology (5 units)
- NANO 52: Introduction to Materials Science (5 units)
- NANO 59: Nanobiotechnology Sciences (5 units)
- NANO 61: Micro & Nano Fabrication Techniques Capstone (5 units)

**Nanoscience Transfer Prerequisite Skills:**
- CHEM 25 or equivalent
- PHYS 10 or equivalent
- MATH 105 or equivalent

**Nanoscience Transfer Core Courses: 68 Units**

**(53 Units + Electives 15 units)**

- CHEM 1A: General Chemistry (5 units)
- CHEM 1B: General Chemistry (5 units)
- CHEM 1C: General Chemistry & Qualitative Analysis (5 units)
- NANO 51: Introduction to Nanotechnology (5 units)
- MATH 1A: Calculus (5 units)
- MATH 1B: Calculus (5 units)
- MATH 1C: Calculus (5 units)
- PHYS 4A: General Physics (Calculus) (6 units)

**Nanoscience Transfer Electives: (15 units)**

- BIOL 1A: Principles of Cell Biology (6 units)
- BIOL 1D: Molecular Genetics (4 units)
- ENGL 3: Technical Writing (5 units)
- ENGR 35: Statics (5 units)
- ENGR 45: Properties of Materials (5 units)
- NANO 52: Introduction to Materials Science (5 units)
- NANO 53: Materials Characterization (5 units)
- NANO 54: Surfaces & Thin Films (5 units)
- NANO 56: Principles of MEMS, NEMS & Sensors (5 units)
- NANO 57: Introduction to Micro & Nano Fabrication Techniques (5 units)
- NANO 58: Micro & Nano Fabrication Techniques Laboratory (5 units)
- NANO 61: Micro & Nano Fabrication Techniques Capstone (5 units)

**Certificate of Achievement: Nanoscience (40 units)**

- NANO 51: Introduction to Nanotechnology (5 units)
- NANO 52: Introduction to Materials Science (5 units)
- NANO 53: Materials Characterization (5 units)
- NANO 54: Surfaces & Thin Films (5 units)
- NANO 56: Principles of MEMS, NEMS & Sensors (5 units)
- NANO 57: Introduction to Micro & Nano Fabrication Techniques (5 units)
- NANO 58: Micro & Nano Fabrication Techniques Laboratory (5 units)

**Certificate of Proficiency: Nanobiotechnology (37 units)**

NON-TRANSCRIPTABLE[136]

- BTEC 51A: Cell Biology for Biotechnology (3 units)
- BTEC 51AL: Cell Biology Laboratory for Biotechnology (5.5 units)
- BTEC 52A: Molecular Biology for Biotechnology (3 units)
- BTEC 52AL: Molecular Biology Laboratory for Biotechnology (5.5 units)

[136] Certificate completion will not appear on the student’s transcript.
NANO 51 Introduction to Nanotechnology (5 units)
NANO 52 Introduction to Materials Science (5 units)
NANO 59 Nanobiotechnology Sciences (5 units)
NANO 61 Micro & Nano Fabrication Techniques Capstone (5 units)

**Certificate of Proficiency: Nanofabrication (15 units)**
NON-TRANSCRIPTABLE
NANO 51 Introduction to Nanotechnology (5 units)
NANO 57 Introduction to Micro & Nano Fabrication Techniques (5 units)
NANO 58 Micro & Nano Fabrication Techniques Laboratory (5 units)

**Certificate of Proficiency: Characterization & Modeling (15 units)**
NON-TRANSCRIPTABLE
NANO 51 Introduction to Nanotechnology (5 units)
NANO 53 Materials Characterization (5 units)
NANO 54 Surfaces & Thin Films (5 units)

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**NON-CREDIT: GERIATIC HOME AIDE**
Program Type(s): Certificate of Completion

Certificate of Completion: 104 hours
NCSV 400 Geriatric Home Aide Basics (60 Hours)
NCSV 401 Geriatric Home Aide: Nutrition (44 Hours)

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**NON-CREDIT: JOB READINESS**
Program Type(s): Certificate of Completion

Certificate of Completion: 67 hours
NCWP 400 Blueprint for Workforce Success (36 hours)
NCWP 401 Blueprint for Customer Service (18 hours)
NCWP 402 30 Ways to Shine as a New Employee (6 hours)
NCWP 403 Job Club (7 hours)

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**NON-CREDIT: MATHEMATICAL FOUNDATIONS**
Program Type(s): Certificate of Completion

Certificate of Completion: 60 hours
NCBS 401A Mathematical Foundations for College Part I (20 hours)
NCBS 401B Mathematical Foundations for College Part II (40 hours)

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**PARAMEDIC**
Program Type(s): AS Degree; Certificate of Achievement

Units required for major: 100.5, certificate: 85.5

Associate Degree Requirements*
BIOL 40A Human Anatomy & Physiology I (5 units)
BIOL 40B Human Anatomy & Physiology II (5 units)
BIOL 40C Human Anatomy & Physiology III (5 units)

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**Certificate information**
All paramedic classes meet at the Foothill College Middlefield Campus, 4000 Middlefield Road, Palo Alto, CA 94303.

**Certificate of Achievement (85.5 units)**

**Option A: Accelerated**

**Fall Quarter**
EMTP 60A Mobile Intensive Care Paramedic Program: Cognitive & Affective IA (11 units)
EMTP 60B Mobile Intensive Care Paramedic Program: Cognitive, Psychomotor & Affective IB (8.5 units)

**Winter Quarter**
EMTP 61A Mobile Intensive Care Paramedic Program: Cognitive & Affective IIA (11 units)
EMTP 61B Mobile Intensive Care Paramedic Program: Cognitive, Affective & Psychomotor IIB (8.5 units)
EMTP 63A Mobile Intensive Care Paramedic Program: Hospital Specialty Rotations (3 units)

**Spring Quarter**
EMTP 62A Mobile Intensive Care Paramedic Program: Cognitive & Affective IIIA (11 units)
EMTP 62B Mobile Intensive Care Paramedic Program: Cognitive, Affective & Psychomotor IIIIB (8.5 units)
EMTP 63B Mobile Intensive Care Paramedic Program: Hospital Emergency Department Rotations (5 units)

**Summer Session**
EMTP 64A Mobile Intensive Care Paramedic Program: Ambulance Field Internship (9.5 units)
EMTP 64B Mobile Intensive Care Paramedic Program: Ambulance Field Internship (9.5 units)

**Option B: Standard**

**Fall Quarter**
EMTP 60A Mobile Intensive Care Paramedic Program: Cognitive & Affective IA (11 units)
EMTP 60B Mobile Intensive Care Paramedic Program: Cognitive, Psychomotor & Affective IB (8.5 units)

**Winter Quarter**
EMTP 61A Mobile Intensive Care Paramedic Program: Cognitive & Affective IIA (11 units)
EMTP 61B Mobile Intensive Care Paramedic Program: Cognitive, Affective & Psychomotor IIB (8.5 units)
EMTP 63A Mobile Intensive Care Paramedic Program: Hospital Specialty Rotations (3 units)

**Spring Quarter**
EMTP 62A Mobile Intensive Care Paramedic Program: Cognitive & Affective IIIA (11 units)
EMTP 62B Mobile Intensive Care Paramedic Program: Cognitive, Affective & Psychomotor IIIIB (8.5 units)

**Summer Session**
EMTP 63B Mobile Intensive Care Paramedic Program: Hospital Emergency Department Rotations (5 units)

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*A minimum of 90 units required for the A.A./A.S. Degree, to include required courses, required electives, and graduation requirements, and these minimum proficiencies: ENGL 1A or ESL 26, and MATH 105.

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A minimum of 90 units required for the A.A./A.S. Degree, to include required courses, required electives, and graduation requirements, and these minimum proficiencies: ENGL 1A or ESLL 26, and MATH 105.

**PHARMACY TECHNICIAN**

**Program Type(s):**
AS Degree; Certificate of Achievement

Units required for major: 52, certificate: 52

**Associate Degree Requirements**

**Core Courses:** (52 units)

- **Fall Quarter**
  - PHT 50 Orientation to Pharmacy Technology (3 units)
  - PHT 51 Basic Pharmaceutics (4 units)
  - PHT 52A Inpatient Dispensing (3 units)
  - PHT 53 Ambulatory Pharmacy Practice (4 units)
  - PHT 54A Dosage Calculations A (3 units)
  - PHT 60A Retail Clinical I (1.5 units)
    - or PHT 62A Hospital Clinical I (1.5 units)

- **Winter Quarter**
  - PHT 52B Aseptic Technique & IV Preparation (4 units)
  - PHT 54B Dosage Calculations B (3 units)
  - PHT 55A Pharmacology A (6 units)
  - PHT 56A Dispensing & Compounding A (4 units)
  - And any one of the following clinical courses:
    - PHT 60A Retail Clinical I (1.5 units)
    - PHT 60B Retail Clinical II (1.5 units)
    - PHT 62A Hospital Clinical I (1.5 units)
    - PHT 62B Hospital Clinical II (1.5 units)

- **Spring Quarter**
  - PHT 55B Pharmacology B (6 units)
  - PHT 56B Dispensing & Compounding B (3 units)
  - PHT 61 Home Healthcare Supplies (3 units)
  - And any two of the following clinical courses:
    - PHT 60A Retail Clinical I (1.5 units)
    - PHT 60B Retail Clinical II (1.5 units)
    - PHT 62A Hospital Clinical I (1.5 units)
    - PHT 62B Hospital Clinical II (1.5 units)

**PHILOSOPHY**

**Program Type(s):**
AA Degree

Units required for major: 33

**Associate Degree Requirements**

**Core Courses:** (17 units)

- PHIL 2 Introduction to Social & Political Philosophy (4 units)
- PHIL 4 Introduction to Philosophy (4 units)
- PHIL 8 Ethics (5 units)

and 4 units from the following courses:

- PHIL 1 Critical Thinking & Writing (5 units)
- PHIL 7 Introduction to Symbolic Logic (5 units)
- PHIL 50 Introduction to Critical Thinking (4 units)

**Support Courses:** (8 units)

- PHIL 20A History of Western Philosophy from Socrates through St. Thomas (4 units)
- PHIL 20B History of Western Philosophy from the Renaissance through Kant (4 units)
- PHIL 20C Contemporary Philosophy: 19th & 20th Century Thought (4 units)
- PHIL 22 Introduction to World Religions: The Search for Spiritual Meaning (4 units)
- PHIL 24 Comparative World Religions: East (4 units)
- PHIL 25 Comparative World Religions: West (4 units)

**Elective Courses:** (8 units)

- ANTH 2A Cultural Anthropology (4 units)
- ART 2A History of Art: History of Western Art from Prehistory through Early Christianity (4.5 units)
  - or ART 2AH Honors History of Art: History of Western Art from Prehistory through Early Christianity (4.5 units)
- ART 2B History of Western Art from the Middle Ages to the Renaissance (4.5 units)
  - or ART 2BH Honors History of Western Art from the Middle Ages to the Renaissance (4.5 units)
- ART 2C History of Western Art from the Baroque to Post Impressionism (4.5 units)
  - or ART 2CH Honors History of Western Art from the Baroque to Post Impressionism (4.5 units)
- ART 12 Introduction to Asian Art (4.5 units)
- BUSI 70 Business & Professional Ethics (4 units)
- HIST 4A History of Western Civilization to 800 AD (4 units)
  - or HIST 4AH Honors History of Western Civilization (4 units)
- HIST 4B History of Western Civilization II (4 units)
  - or HIST 4BH Honors History of Western Civilization (4 units)
- HIST 4C History of Western Civilization 1789–Present (4 units)
  - or HIST 4CH Honors History of Western Civilization (4 units)
- HIST 9 History of Contemporary Europe (4 units)
  - or HIST 9H Honors History of Contemporary Europe (4 units)
- HIST 18 Introduction to Middle Eastern Civilization (4 units)
- HUMN 1A Humanities & the Modern Experience I (4 units)
- HUMN 1B Humanities & the Modern Experience II (4 units)
- ENGL 26 Language, Mind & Society (4 units)
  - or LING 26 Language, Mind & Society (4 units)
- POLI 3 Introduction to Political Philosophy/Political Theory (5 units)
  - or POLI 3H Honors Introduction to Political Philosophy/Political Theory (5 units)
- POLI 9 Political Economy (4 units)
  - or POLI 9H Honors Political Economy (4 units)
- PSYC 1 General Psychology (5 units)
- PSYC 4 Introduction to Psychobiology (4 units)
- SOC 1 Introduction to Sociology (5 units)

[[139]] Students may also use courses listed under support courses for electives.
PHOTOGRAPHY

Program Type(s):
AA Degree; Certificate of Achievement; Skills Certificate

Units required for major: 40, certificate: 12–40

**Associate Degree Requirements* **

**Core Courses:** (23 units)
- PHOT 1 Black & White Photography I (4 units)
  - or PHOT 5 Introduction to Photography (4 units)
- PHOT 10 History of Photography (4 units)
  - or PHOT 10H Honors History of Photography (4 units)
- PHOT 65A Digital Photography I (4 units)
- ART 5A Basic Two-Dimensional Design (3 units)
- PHOT 57A Photographic Portfolio Development (4 units)
- PHOT 57B Professional Practices in Photography (4 units)

And select option #1 or option #2:

**Option #1: Traditional Photography (12 units)**
- PHOT 2 Black & White Photography II (4 units)
- PHOT 50 Black & White Photography III (4 units)
- PHOT 70 Introduction to Color Photography (4 units)

**Option #2: Digital Imaging (12 units)**
- PHOT 65B Digital Photography II (4 units)
- PHOT 65C Digital Photography III (4 units)
- PHOT 71 The Photographic Book (4 units)

**Elective Courses:** (5 units)
- ART 6 Collage & Composition (3 units)
- ART 20A Color (3 units)
- PHOT 1 Black & White Photography I (4 units)
- PHOT 2 Black & White Photography II (4 units)
- PHOT 5 Introduction to Photography (4 units)
- PHOT 8 Photography of Multicultural America (4 units)
  - or PHOT 10H Honors Photography of Multicultural America (4 units)
- PHOT 10 History of Photography (4 units)
  - or PHOT 10H Honors History of Photography (4 units)
- PHOT 11 Contemporary Issues in Photography (4 units)
  - or PHOT 11H Honors Contemporary Issues in Photography (4 units)
- PHOT 13 Experimental Photography (4 units)
- PHOT 50 Black & White Photography III (4 units)
- PHOT 51 Zone System Photography (4 units)
- PHOT 55 Special Projects in Photography (2 units)
- PHOT 57A Photographic Portfolio Development (4 units)
- PHOT 57B Professional Practices in Photography (4 units)
- PHOT 63 Photojournalism (4 units)
- PHOT 65A Digital Photography I (4 units)
- PHOT 65B Digital Photography II (4 units)
- PHOT 65C Digital Photography III (4 units)
- PHOT 68A Darkroom Topics in Photography (1 unit)
- PHOT 68B Digital Topics in Photography (1 unit)
- PHOT 68C Studio Lighting Topics in Photography (1 unit)
- PHOT 68D Experimental Topics in Photography (1 unit)
- PHOT 68E Lecture Topics in Photography (1 unit)
- PHOT 68F Exhibition Topics in Photography (1 unit)
- PHOT 70 Introduction to Color Photography (4 units)

**Certificate of Achievement I (40 units)**
Awarded upon completion of the core, required option #1 or #2, and electives. General education courses are not required.

**Certificate of Achievement: Traditional Photography II (30 units)**
- PHOT 1 Black & White Photography I (4 units)
  - or PHOT 5 Introduction to Photography (4 units)
- PHOT 2 Black & White Photography II (4 units)
  - or PHOT 10H Honors History of Photography (4 units)
- PHOT 10 History of Photography (4 units)
  - or PHOT 10H Honors History of Photography (4 units)
- PHOT 50 Black & White Photography III (4 units)
- PHOT 65A Digital Photography I (4 units)
- PHOT 70 Introduction to Color Photography (4 units)
- ART 5A Basic Two-Dimensional Design (3 units)

**Certificate of Achievement: Digital Imaging II (30 units)**
- PHOT 1 Black & White Photography I (4 units)
  - or PHOT 5 Introduction to Photography (4 units)
- PHOT 2 Black & White Photography II (4 units)
  - or PHOT 10H Honors History of Photography (4 units)
- PHOT 10 History of Photography (4 units)
  - or PHOT 10H Honors History of Photography (4 units)
- PHOT 65A Digital Photography I (4 units)
- PHOT 65B Digital Photography II (4 units)
- PHOT 65C Digital Photography III (4 units)
- PHOT 71 The Photographic Book (4 units)
- ART 5A Basic Two-Dimensional Design (3 units)

**Certificate of Achievement: Traditional Photography II (30 units)**
- PHOT 1 Black & White Photography I (4 units)
  - or PHOT 5 Introduction to Photography (4 units)
- PHOT 2 Black & White Photography II (4 units)
  - or PHOT 10H Honors History of Photography (4 units)
- PHOT 10 History of Photography (4 units)
  - or PHOT 10H Honors History of Photography (4 units)
- PHOT 50 Black & White Photography III (4 units)
- PHOT 65A Digital Photography I (4 units)
- PHOT 70 Introduction to Color Photography (4 units)
- ART 5A Basic Two-Dimensional Design (3 units)

**Certificate of Achievement: Digital Imaging II (30 units)**
- PHOT 1 Black & White Photography I (4 units)
  - or PHOT 5 Introduction to Photography (4 units)
- PHOT 2 Black & White Photography II (4 units)
  - or PHOT 10H Honors History of Photography (4 units)
- PHOT 10 History of Photography (4 units)
  - or PHOT 10H Honors History of Photography (4 units)
- PHOT 65A Digital Photography I (4 units)
- PHOT 65B Digital Photography II (4 units)
- PHOT 65C Digital Photography III (4 units)
- PHOT 71 The Photographic Book (4 units)
- ART 5A Basic Two-Dimensional Design (3 units)

**Skills Certificate: Photographic Laboratory Technician**
(12.5 units)

**NON-TRANSCRIPTABLE**
- PHOT 1 Black & White Photography I (4 units)
  - or PHOT 5 Introduction to Photography (4 units)
- PHOT 2 Black & White Photography II (4 units)
  - or PHOT 10H Honors History of Photography (4 units)
- PHOT 10 History of Photography (4 units)
  - or PHOT 10H Honors History of Photography (4 units)
- PHOT 65A Digital Photography I (4 units)
- PHOT 65B Digital Photography II (4 units)
- PHOT 65C Digital Photography III (4 units)
- PHOT 71 The Photographic Book (4 units)
- ART 5A Basic Two-Dimensional Design (3 units)

**Skills Certificate: Photo Criticism (12 units)**

**NON-TRANSCRIPTABLE**
- PHOT 5 Introduction to Photography (4 units)
- PHOT 10 History of Photography (4 units)

*Maximum of 3 units of laboratory may be used toward a degree or certificate.

**Maximum of 3 units of laboratory may be used toward a degree or certificate.

**Maximum of 3 units of laboratory may be used toward a degree or certificate.

**Plus 50 hours of work experience verified by employer or volunteer supervisor.

**Certificate completion will not appear on the student’s transcript.

**Certificate completion will not appear on the student’s transcript.

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**A minimum of 90 units required for the A.A./A.S. Degree, to include required courses, required electives, and graduation requirements, and these minimum proficiencies: ENGL 1A or ESLL 26, and MATH 105.**
A minimum of 90 units required for the A.A./A.S. Degree, to include required courses, required electives, and graduation requirements, and these minimum proficiencies: ENGL 1A or ESLL 26, and MATH 105.

**PHYSICAL EDUCATION**

**Program Type(s):**
- **AA Degree**
  Units required for major: 34

**Associate Degree Requirements**

**Core Courses: (34 units)**
- PHED 1 Introduction to Physical Education as a Profession (4 units)
- PHED 3 Theories & Techniques of Coaching Sports (4 units)
- PHED 67B Emergency Athletic Injury Care (3 units)
- BIOL 10 General Biology: Basic Principles (5 units)
- PHED 2 Sport in Society (4 units)
- PHED 4 Concepts of Physical Fitness & Wellness (4 units)
- PHED 8 Theory & Concepts of Exercise Physiology (4 units)
- and 6 units of any PHED activity courses or DANC courses.

**Elective Courses: (Recommended)**
- PHED 6 Performance-Enhancing Substances in Sport & Exercise (4 units)
- PHED 66 First Aid & CPR/AED (2 units)
- PHED 67A Prevention of Athletic Injuries (3 units)
- PHED 67C Treatment & Rehabilitation of Athletic Injuries (3 units)
- BIOL 14 Human Biology (5 units)
- PHED 2 Sport in Society (4 units)
- PHED 4 Concepts of Physical Fitness & Wellness (4 units)
- PHED 8 Theory & Concepts of Exercise Physiology (4 units)
- and 6 units of any PHED activity courses or DANC courses.

**POLITICAL SCIENCE**

**Program Type(s):**
- **AA Degree**
  Units required for major: 35

**Associate Degree Requirements**

**Core Courses: (18 units)**
- POLI 1 Political Science: Introduction to American Government & Politics (5 units)
- POLI 2 Comparative Government & Politics (4 units)
- POLI 3 Introduction to Political Philosophy/Political Theory (5 units)
- BIOB 10 Topics in Dance History (4 units)
- PHED 6 Performance-Enhancing Substances in Sport & Exercise (4 units)
- PHED 66 First Aid & CPR/AED (2 units)
- PHED 67B Emergency Athletic Injury Care (3 units)
- PHED 67A Prevention of Athletic Injuries (3 units)
- PHED 67C Treatment & Rehabilitation of Athletic Injuries (3 units)
- BIOL 10 General Biology: Basic Principles (5 units)
- BIOL 14 Human Biology (5 units)
- PHED 2 Sport in Society (4 units)
- PHED 4 Concepts of Physical Fitness & Wellness (4 units)
- PHED 8 Theory & Concepts of Exercise Physiology (4 units)
- and 6 units of any PHED activity courses or DANC courses.

**Elective Courses: (Recommended)**
- PHED 6 Performance-Enhancing Substances in Sport & Exercise (4 units)
- PHED 66 First Aid & CPR/AED (2 units)
- PHED 67A Prevention of Athletic Injuries (3 units)
- PHED 67C Treatment & Rehabilitation of Athletic Injuries (3 units)
- BIOL 10 General Biology: Basic Principles (5 units)
- BIOL 14 Human Biology (5 units)
- PHED 2 Sport in Society (4 units)
- PHED 4 Concepts of Physical Fitness & Wellness (4 units)
- PHED 8 Theory & Concepts of Exercise Physiology (4 units)

**PHYSICS**

**Program Type(s):**
- **AS Degree**
  Units required for major: 59

**Associate Degree Requirements**

**Core Courses: (59 units)**
- CHEM 1A General Chemistry (5 units)
- CHEM 1B General Chemistry (5 units)
- MATH 1B Calculus (5 units)
- MATH 1C Calculus (5 units)
- MATH 1D Calculus (5 units)
- MATH 2A Differential Equations (5 units)
- MATH 2B Linear Algebra (5 units)
- PHYS 4A General Physics (Calculus) (6 units)
- PHYS 4B General Physics (Calculus) (6 units)
- PHYS 4C General Physics (Calculus) (6 units)
- PHYS 4D General Physics (Calculus) (6 units)

**POPULAR CULTURE**

**Program Type(s):**
- **Certificate of Proficiency NON-TRANSCRIPTABLE**
  Units required for certificate: 16

**Certificate information**

All courses pertaining to the major must be taken for a letter grade. In addition, a GPA of 2.0 or higher is required in all core and elective courses for the certificate.

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*A minimum of 90 units required for the A.A./A.S. Degree, to include required courses, required electives, and graduation requirements, and these minimum proficiencies: ENGL 1A or ESLL 26, and MATH 105.*

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[146] Students may also use courses listed under support courses for electives.

[147] Certificate completion will not appear on the student's transcript.
Certificate of Proficiency in Popular Culture (16 units)

Non-Transcriptable[148]

Core Courses: (12 units)
FA 1 Introduction to Popular Culture (4 units)
FA 2 Popular Culture & U.S. History (4 units)
SOC 8 Popular Culture (4 units)

Electives: (4 units)
BUSI 57 Principles of Advertising (4 units)
or ADVT 57 Principles of Advertising (4 units)
CIS 2 Computers & Society (5 units)
COMM 10 Gender, Communication & Culture (4 units)
ENGL 26 Language, Mind & Society (4 units)
or LING 26 Language, Mind & Society (4 units)
GID 1 History of Graphic Design (4 units)
MUS 7 Contemporary Musical Styles: Rock, Pop & Jazz (4 units)
or MUS 85A Music & Media: Edison to Hendrix (4 units)
PHED 2 Sport in Society (4 units)

Primary Care Associate Program

Program Type(s): AS Degree; Certificate of Achievement

Units required for major: 88.5, certificate: 88.5

Associate Degree Requirements*

Core Courses: (88.5 units)[149]

Summer Quarter
PC 190 Directed Study in Primary Care Medicine (.5 unit)
Student completes personal portfolio. Complete online training.

Fall Quarter[150]
PC 80 Family Medicine Didactic (14 units)
PC 190Z Directed Studies in Primary Care Medicine (2 units)
PC 80P Family Medicine Clinical (5 units)

Winter Quarter[151]
PC 81 Family Medicine Didactic (8 units)
PC 81P Family Medicine Clinical (8 units)

Spring Quarter[152]
PC 82 Family Medicine Didactic (8 units)
PC 82P Family Medicine Clinical (9 units)

PC 83 Family Medicine Didactic (6 units)
PC 83P Family Medicine Clinical (9 units)

Fall Quarter (5th Quarter)[154]
PC 84 Family Medicine Didactic (8 units)
PC 84P Family Medicine Clinical (9 units)

Support Courses:[155]
PC 85 Special Clinical Projects in Primary Care Medicine (4 units)
PC 85X Special Clinical Projects in Primary Care Medicine (5 units)
PC 85Y Special Clinical Projects in Primary Care Medicine (6 units)
PC 86 Special Didactic Projects in Primary Care Medicine (4 units)
PC 86X Special Didactic Projects in Primary Care Medicine (5 units)
PC 86Y Special Didactic Projects in Primary Care Medicine (6 units)
PC 87 Extended Clinical Internship (1 unit)
PC 88 Extended Clinical Internship (2 units)
PC 89 Extended Clinical Internship (3 units)
PC 190X Directed Study in Primary Care Medicine (1 unit)
PC 190Y Directed Study in Primary Care Medicine (1.5 units)

Certificate of Achievement (88.5 units)
Awarded at the completion of all program prerequisites and core course requirements taken in sequence. General education courses are not required.

Psychology

Program Type(s): AA Degree

Units required for major: 33

Associate Degree Requirements*

Core Courses: (25 units)
Required: PSYC 1 General Psychology (5 units)

Select any combination of the following to complete 20 units:
MATH 10 Elementary Statistics (5 units)
PSYC 4 Introduction to Psychobiology (4 units)
PSYC 10 Introduction to Social Research (4 units)
PSYC 14 Childhood & Adolescence (4 units)
PSYC 21 Psychology of Women: Sex & Gender Differences (4 units)
PSYC 22 Psychology of Prejudice (4 units)
PSYC 25 Introduction to Abnormal Psychology (4 units)
PSYC 30 Social Psychology (4 units)
PSYC 33 Introduction to the Concepts of Personality (4 units)
PSYC 40 Human Development (4 units)
PSYC 49 Human Sexuality (4 units)
PSYC 50 Psychology of Crisis (5 units)
PSYC 55 Psychology of Sports (4 units)

[148] Certificate completion will not appear on the student’s transcript.
[149] The program is 16 months in length, presented in five quarters (with a possibility of extending into a sixth quarter) and leads to a Certificate of Achievement. All courses must be taken in sequence.
[150] Students attend classes at Stanford Monday–Friday. Each week a different system is highlighted with lectures that focus on common primary health care problems. Participate in clinical skills sessions and workshops.
[151] Students are in preceptorships for 12 days per month and attend classes one week/month. Learn the diagnosis and management of common primary health care problems covered in lectures.
[152] Students continue to learn about management of acute and chronic primary health care problems. Learn about pediatric and women’s health issues including pre-natal care.
[153] Students learn to recognize and initiate treatment for life-threatening emergencies, and participate in the care of hospitalized and surgical patients.
[154] Integration of medical conditions presented in previous quarters with a continued emphasis on primary health care and family medicine. Emphasize information on preparation for practice and PA licensure.
[155] Offered only by special arrangement.

*A minimum of 90 units required for the A.A./A.S. Degree, to include required courses, required electives, and graduation requirements, and these minimum proficiencies: ENGL 1A or ESSL 26, and MATH 105.
Support Courses: (8 units)
- ANTH 2A Cultural Anthropology (4 units)
- BIOL 10 General Biology: Basic Principles (5 units)
  or BIOL 14 Human Biology (5 units)
- HIST 4C History of Western Civilization 1789–Present (4 units)
  or HIST 4CH Honors History of Western Civilization (4 units)
  or HIST 9 History of Contemporary Europe (4 units)
  or HIST 9H Honors History of Contemporary Europe (4 units)
- PHIL 4 Introduction to Philosophy (4 units)
- PSYC 34H Honors Institute Seminar in Psychology (1 unit)
- PSYC 35 Department Honors Projects in Psychology (1 unit)
- PSYC 36 Special Projects in Psychology (1 unit)
- SOC 40 Aspects of Marriage & Family (4 units)
- WMN 5 Introduction to Women’s Studies (4 units)

RADIO BROADCASTING

Program Type(s):
AA Degree; Certificate of Achievement; Skills Certificate

Units required for major: 37, certificate: 17.5–37

Associate Degree Requirements*

Core Courses: (22 units)
- RAD 80 Fundamentals of Radio Production & Station Operations (3 units)
- RAD 81 History of Radio 1920–Present (4 units)
- RAD 90A News & Information Production I (3 units)

And any 4 courses from the following:
- RAD 90B News & Information Production II (3 units)
- RAD 90C News & Information Production III (3 units)
- RAD 90D News & Information Production IV (3 units)
- RAD 91A Radio Station Sales & Marketing I (3 units)
- RAD 91B Radio Station Sales & Marketing II (3 units)
- RAD 91C Radio Station Sales & Marketing III (3 units)
- RAD 91D Radio Station Sales & Marketing IV (3 units)
- RAD 92A Radio Programming & Production I (3 units)
- RAD 92B Radio Programming & Production II (3 units)
- RAD 92C Radio Programming & Production III (3 units)
- RAD 92D Radio Programming & Production IV (3 units)
- RAD 93A Music Industry Relations & Engineering I (3 units)
- RAD 93B Music Industry Relations & Engineering II (3 units)
- RAD 93C Music Industry Relations & Engineering III (3 units)
- RAD 93D Music Industry Relations & Engineering IV (3 units)

Support Courses: (15 units)
Select any 15 units from one emphasis:

Broadcast Performance Emphasis
- COMM 1A Public Speaking (5 units)
  or COMM 1AH Honors Public Speaking (5 units)
- COMM 24 Readers’ Theatre (5 units)
- COMM 30 Oral Interpretation of Literature (5 units)
- COMM 46 Voice & Diction (5 units)
- MUS 1 Introduction to Music (4 units)

Broadcast Journalism Emphasis
- CIS (one 4-unit CIS course) (4 units)
- COMM 1A Public Speaking (5 units)
  or COMM 1AH Honors Public Speaking (5 units)
- COMM 46 Voice & Diction (5 units)
- COMM 55 Career Leadership Communication in the Global Workplace (5 units)
- ENGL 4 Journalism (4 units)
- RAD 70, X–Z Special Projects in Radio (1–4 units)
- RAD 190, X–Z Directed Study (.5–2 units)

Broadcast Business Management Emphasis
- ACTG 1A Financial Accounting I (5 units)
- ADVT 57 Principals of Advertising (4 units)
  or BUSI 57 Principals of Advertising (4 units)
- BUSI 22 Principals of Business (4 units)
- BUSI 97, X, Y or Z Management Seminar (.5–3 units)
- CIS (one 4-unit CIS course) (4 units)
- COMM 1A Public Speaking (5 units)
  or COMM 1AH Honors Public Speaking (5 units)
- COMM 55 Career Leadership Communication in the Global Workplace (5 units)
- MUS 50A Music Business (4 units)
- MUS 50B Entertainment Law & New Media (4 units)
- RAD 70, X–Z Special Projects in Radio (1–4 units)
- RAD 190, X–Z Directed Study (.5–2 units)

Certificate of Achievement: (37 units)
Awarded upon completion of the degree core and support courses. General education courses are not required.

Skills Certificate: (20 units) NON-TRANSCRIPTABLE
- RAD 80 Fundamentals of Radio Production & Station Operations (3 units)
- RAD 90A News & Information Production (3 units)
  And two courses from the following:
  - RAD 90B News & Information Production II (3 units)
  - RAD 90C News & Information Production III (3 units)
  - RAD 90D News & Information Production IV (3 units)
  - RAD 91A Radio Station Sales & Marketing I (3 units)
  - RAD 91B Radio Station Sales & Marketing II (3 units)
  - RAD 91C Radio Station Sales & Marketing III (3 units)
  - RAD 91D Radio Station Sales & Marketing IV (3 units)
  - RAD 92A Radio Programming & Production I (3 units)
  - RAD 92B Radio Programming & Production II (3 units)
  - RAD 92C Radio Programming & Production III (3 units)
  - RAD 92D Radio Programming & Production IV (3 units)
  - RAD 93A Music Industry Relations & Engineering I (3 units)
  - RAD 93B Music Industry Relations & Engineering II (3 units)
  - RAD 93C Music Industry Relations & Engineering III (3 units)
  - RAD 93D Music Industry Relations & Engineering IV (3 units)

[154] May also use courses listed as core courses for support courses.

[157] Certificate completion will not appear on the student’s transcript.

*A minimum of 90 units required for the A.A./A.S. Degree, to include required courses, required electives, and graduation requirements, and these minimum proficiencies: ENGL 1A or ESLL 26, and MATH 105.

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A minimum of 90 units required for the A.A./A.S. Degree, to include required courses, required electives, and graduation requirements, and these minimum proficiencies: ENGL 1A or ESLI 26, and MATH 105.

**RADILOGIC TECHNOLOGY**

**Program Type(s):**
- AS Degree

Units required for major: 101

**Associate Degree Requirements**

**Core Courses:** (101 units)

- First Year
  - Summer Session
    - RT 50 Orientation to Radiation Science Technologies (2 units)
    - RT 53 Orientation to Radiologic Technology (1 unit)
  - Fall Quarter
    - RT 54A Basic Patient Care for Imaging Technology (2 units)
    - RT 51A Fundamentals of Radiologic Technology I (3 units)
    - RT 52A Principles of Radiologic Technology I (3 units)
    - RT 53A Applied Radiographic Technology I (3 units)
    - RT 53AL Applied Radiographic Technology Laboratory I (1 unit)
  - Winter Quarter
    - RT 54B Law & Ethics in Medical Imaging (2 units)
    - RT 51B Fundamentals of Radiologic Technology II (3 units)
    - RT 52B Principles of Radiologic Technology II (3 units)
    - RT 53B Applied Radiologic Technology II (3 units)
    - RT 53BL Applied Radiologic Technology Laboratory II (1 unit)
  - Spring Quarter
    - RT 54C Radiographic Pathology (3 units)
    - PSYC 1 General Psychology (5 units)
  - Summer Session (8 weeks)
    - RT 72 Venipuncture (2 units)

- Second Year
  - Fall Quarter
    - RT 62A Radiographic Positioning (3 units)
    - RT 63A Radiographic Clinical Practicum I (7.5 units)
    - RT 52D Digital Image Acquisition & Display (3 units)
  - Winter Quarter
    - RT 62B Special Procedures & Equipment (3 units)
    - RT 63B Radiographic Clinical Practicum II (7.5 units)
    - RT 65 Mammography (3 units)
  - Spring Session
    - RT 61B Radiology Research Project (1 unit)
    - RT 62C Advanced Radiographic Positioning (3 units)
    - RT 63 Advanced Radiographic Principles (3 units)
    - RT 63C Radiographic Clinical Practicum III (7.5 units)

**REAL ESTATE**

**Program Type(s):**
- AA Degree; Certificate of Achievement; Career Certificate

Units required for major: 33, certificate: 12–33

**Associate Degree Requirements**

**Core Courses:** (33 units)

- BUSI 18 Business Law I (5 units)
- RE 50 Real Estate Principles (4 units)
- RE 51 Real Estate Practices (4 units)
- RE 52A Legal Aspects of Real Estate I (4 units)
- RE 53 Real Estate Finance (4 units)
- RE 54 Real Estate Economics (4 units)
- RE 56A Real Estate Appraisal I (4 units)
- RE 59 Survey of Real Estate Property Management (4 units)

**Real Estate Broker Certificate of Achievement (33 units)**

Awarded upon completion of the degree core courses. General education courses are not required. Meets the California Department of Real Estate course requirements for a broker license.

**Real Estate Salesperson Career Certificate (12 units)**

**NON-TRANSCRIPTABLE**

Meets the California Department of Real Estate course requirements for a salesperson license.

**Core Courses:** (8 units)

- RE 50 Real Estate Principles (4 units)
- RE 51 Real Estate Practices (4 units)

**Support Courses:** (4 units)

- RE 52A Legal Aspects of Real Estate I (4 units)
- RE 53 Real Estate Finance (4 units)
- RE 54 Real Estate Economics (4 units)
- RE 56A Real Estate Appraisal I (4 units)
- RE 59 Survey of Real Estate Property Management (4 units)
- BUSI 18 Business Law I (5 units)

[158] Certificate completion will not appear on the student’s transcript.

[159] All courses must be completed in sequence with a grade of C or better.

[160] Certificate completion will not appear on the student’s transcript.
RESPIRATORY THERAPY

Program Type(s):
AS Degree
Units required for major: 104

Associate Degree Requirements*
Core Courses: (104 units)
First Year
Fall Quarter
RSPT 50A Respiratory Therapy Procedures (4.5 units)
RSPT 51A Introduction to Respiratory Anatomy & Physiology
(2 units)
RSPT 52 Applied Science for Respiratory Therapy (3 units)
RSPT 54 Orientation to Respiratory Care (1.5 units)
RSPT 55A Directed Studies in Respiratory Therapy I (.5 unit)
BIOL 40A Human Anatomy & Physiology I (5 units)

Winter Quarter
RSPT 50B Introduction to Procedures & Hospital Orientation
(6 units)
RSPT 53A Introduction to Respiratory Therapy Pharmacology
(2 units)
RSPT 55B Directed Studies in Respiratory Therapy II (.5 unit)
BIOL 40B Human Anatomy & Physiology II (5 units)
BIOL 41 Microbiology (6 units)

Spring Quarter
RSPT 50C Therapeutics & Introduction to Mechanical
Ventilation (4.5 units)
RSPT 51B Respiratory Physiology (3 units)
RSPT 51C Patient Assessment & Pulmonary Disease (4.5 units)
RSPT 55C Directed Studies in Respiratory Therapy III (.5 unit)
BIOL 40C Human Anatomy & Physiology III (5 units)

Summer Session (6 weeks)
RSPT 55D Directed Studies in Respiratory Therapy IV (.5 unit)
RSPT 61A Adult Mechanical Ventilation (4 units)
RSPT 70A Clinical Rotation I (2 units)

Second Year
Fall Quarter
RSPT 53B Advanced Respiratory Therapy Pharmacology (2 units)
RSPT 55E Directed Studies in Respiratory Therapy V (.5 unit)
RSPT 60A Cardiology for Respiratory Therapists (2 units)
RSPT 61B Neonatal & Pediatric Intensive Care (4 units)
RSPT 70B Clinical Rotation II (6 units)
PSYC 1 General Psychology (5 units)

Winter Quarter
RSPT 55F Directed Studies in Respiratory Therapy VI (.5 unit)
RSPT 60B Advanced Cardiac Life Support (2 units)
RSPT 61C Home & Rehabilitative Respiratory Care (2 units)
RSPT 63A Advanced Pathophysiology & Patient Management
(3 units)
RSPT 65 Computer Patient Simulations (.5 unit)
RSPT 70C Clinical Rotation III (6 units)

Spring Quarter
RSPT 55G Directed Studies in Respiratory Therapy VII (.5 unit)
RSPT 60C Pulmonary Diagnostics (3 units)
RSPT 62 Management, Resume & National Board Examination
(1 unit)
RSPT 70D Clinical Rotation IV (6 units)

Optional
RSPT 71A–G Extended Clinical Internship in Respiratory
Therapy (1 unit each)
RSPT 72A–G Extended Clinical Internship in Respiratory
Therapy (2 units each)
RSPT 73A–G Extended Clinical Internships in Respiratory
Therapy (3 units each)
RSPT 190, X, Y or Z Directed Study (.5–2 units)

SOCILOGY

Program Type(s):
AA Degree; Certificate of Specialization
Units required for major: 30, certificate: 13–26

Associate Degree Requirements*
Required Courses: (5 units)
SOC 1 Introduction to Sociology (5 units)

Core Courses: (12 units)
SOC 8 Popular Culture (4 units)
SOC 10 Introduction to Social Research (4 units)
SOC 11 Introduction to Social Welfare (5 units)
SOC 15 Law & Society (4 units)
SOC 19 Alcohol & Drug Abuse (4 units)
SOC 20 Major Social Problems (4 units)
SOC 23 Race & Ethnic Relations (4 units)
SOC 30 Social Psychology (4 units)
SOC 40 Aspects of Marriage & Family (4 units)
SOC 57 Child Advocacy (4 units)

Support Courses: (13 units)
ANTH 2A Cultural Anthropology (4 units)
ECON 1A Principles of Macroeconomics (5 units)
GEOG 10 World Regional Geography (4 units)
HIST 4A History of Western Civilization to 800 AD (4 units)
or HIST 4B History of Western Civilization II (4 units)
or HIST 4C History of Western Civilization 1789–Present (4 units)
or HIST 4CH Honors History of Western Civilization (4 units)
MATH 10 Elementary Statistics (5 units)
PHIL 1 Critical Thinking & Writing (5 units)
PSYC 22 Psychology of Prejudice (4 units)
SOC 34H Honors Institute Seminar in Sociology (1 unit)
SOC 35 Department Honors Projects in Sociology (1 unit)
SOC 36 Special Projects in Sociology (1 unit)
WMN 5 Introduction to Women's Studies (4 units)
WMN 21 Psychology of Women: Sex & Gender Differences (4 units)
or SOC 21 Psychology of Women: Sex & Gender Differences
(4 units)

* A minimum of 90 units required for the A.A./A.S. Degree, to include required courses, required electives, and graduation requirements, and these minimum proficiencies: ENGL 1A or ESLI 26, and MATH 105.
Certificate information
Request forms at www.foothill.edu/bss/cert/index.php

Certificate of Specialization in General Sociology (13 units)
NON-TRANSCRIPTABLE[161]

Required Courses: (5 units)
SOC 1 Introduction to Sociology (5 units)

Core Courses: (4 units)
SOC 8 Popular Culture (4 units)
SOC 10 Introduction to Social Research (4 units)
SOC 11 Introduction to Social Welfare (5 units)
SOC 15 Law & Society (4 units)
SOC 19 Alcohol & Drug Abuse (4 units)
SOC 20 Major Social Problems (4 units)
SOC 23 Race & Ethnic Relations (4 units)
SOC 30 Social Psychology (4 units)
SOC 40 Aspects of Marriage & Family (4 units)

Support Courses (4 units)
ANTH 2A Cultural Anthropology (4 units)
ECON 1A Principles of Macroeconomics (5 units)
GEOG 10 World Regional Geography (4 units)
HIST 4A History of Western Civilization to 800 AD (4 units)
or HIST 4B History of Western Civilization II (4 units)
or HIST 4C History of Western Civilization 1789–Present (4 units)
or HIST 4CH Honors History of Western Civilization (4 units)
MATH 10 Elementary Statistics (5 units)
PHIL 1 Critical Thinking (5 units)
PSYC 22 Psychology of Prejudice (4 units)
WMN 5 Introduction to Women’s Studies (4 units)
WMN 21 Psychology of Women: Sex & Gender Differences (4 units)
or SOC 21 Psychology of Women: Sex & Gender Differences (4 units)

Certificate of Specialization in Sociology: Social Welfare (26 units) NON-TRANSCRIPTABLE[162]

Required Courses (9 units)
SOC 11 Introduction to Social Welfare (5 units)

Core Courses (12 units)
SOC 1 Introduction to Sociology (5 units)
SOC 8 Popular Culture (4 units)
SOC 15 Law & Society (4 units)
SOC 20 Major Social Problems (4 units)
SOC 23 Race & Ethnic Relations (4 units)
SOC 40 Aspects of Marriage & Family (4 units)
SOC 57 Child Advocacy (4 units)

Support Courses (5 units)
BUSI 18 Business Law I (4 units)
HLTH 21 Health Education (3 units)
PSYC 22 Psychology of Prejudice (4 units)

[161] Certificate completion will not appear on the student’s transcript.
[162] Certificate completion will not appear on the student’s transcript.

SPANISH

Program Type(s):
AA Degree; Certificate of Proficiency; Career Certificate; Certificate of Specialization

Units required for major: 30, certificate: 12–30

Certificate of Proficiency in Spanish Conversation (16 units)[164]
NON-TRANSCRIPTABLE[165]

SPAN 1 Elementary Spanish I (5 units)
SPAN 2 Elementary Spanish II (5 units)
SPAN 3 Elementary Spanish III (5 units)
SPAN 4 Intermediate Spanish I (5 units)
SPAN 5 Intermediate Spanish II (5 units)
SPAN 6 Intermediate Spanish III (5 units)

Support Courses: (optional)
SPAN 13A Intermediate Conversation I (4 units)
SPAN 13B Intermediate Conversation II (4 units)
SPAN 14A Advanced Conversation I (4 units)
SPAN 14B Advanced Conversation II (4 units)
SPAN 25A Advanced Composition & Reading I (4 units)
SPAN 25B Advanced Composition & Reading II (4 units)

Certificate of Specialization in Spanish Language (15 units)[166]
NON-TRANSCRIPTABLE[167]

SPAN 1 Elementary Spanish I (5 units)
SPAN 2 Elementary Spanish II (5 units)
SPAN 3 Elementary Spanish III (5 units)

Career Certificate in Spanish Language (30 units)[168]
NON-TRANSCRIPTABLE[169]

Choose 30 units from the following:
SPAN 1 Elementary Spanish I (5 units)
SPAN 2 Elementary Spanish II (5 units)
SPAN 3 Elementary Spanish III (5 units)
SPAN 4 Intermediate Spanish I (5 units)

[163] Students who can demonstrate proficiency equivalent to 1 year of college Spanish, SPAN 1, 2 and 3 can be eliminated from the core courses. 18 units must be completed in residence at Foothill College.
[164] 8 units must be completed in residence at Foothill College.
[165] Certificate completion will not appear on the student’s transcript.
[166] 10 units must be completed in residence at Foothill College.
[167] Certificate completion will not appear on the student’s transcript.
[168] Students who can demonstrate proficiency equivalent to 1 year of college Spanish, SPAN 1, 2 and 3 can be eliminated from the core courses. 18 units must be completed in residence at Foothill College.
[169] Certificate completion will not appear on the student’s transcript.

*A minimum of 90 units required for the A.A./A.S. Degree, to include required courses, required electives, and graduation requirements, and these minimum proficiencies: ENGL 1A or ESLL 26, and MATH 105.

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SPAN 5 Intermediate Spanish II (5 units)
SPAN 6 Intermediate Spanish III (5 units)
SPAN 13A Intermediate Conversation I (4 units)
SPAN 13B Intermediate Conversation II (4 units)

**SPECIAL EDUCATION**

**Program Type(s):**
AA Degree; Certificate of Achievement

Units required for major: 35, certificate: 27

**Associate Degree Requirements**

**Core Courses:** (27 units)
SPED 57 Working with Special Populations (3 units)
SPED 61 Introduction to Disabilities (4 units)
SPED 62 Psychological Aspects of Disability (4 units)
SPED 63 Learning Disabilities (4 units)
SPED 64 Disability & The Law (4 units)
SPED 66 Disability & Technology Access (4 units)
SPED 69 Special Education Strategies & Practicum (4 units)

**Support Courses:** (8 units)
BIOL 14 Human Biology (5 units)
BIOL 45 Introduction to Human Nutrition (4 units)
COMM 3 Fundamentals of Oral Communication (5 units)
EDUC 50 Principles of Education: The Teaching Challenge (4 units)
GERN 50 Sociology of Aging (3 units)
GERN 51 Psychology of Aging (3 units)
GERN 52 Health & Aging (3 units)
HLTH 55 Emergency Response (5 units)
PSYC 1 General Psychology (5 units)
PSYC 25 Introduction to Abnormal Psychology (4 units)
SPED 50 Introduction to Adaptive Fitness Techniques (3 units)
SPED 52 Positive Aging (3 units)
SPED 54 Principles of Therapeutic Exercise (3 units)
SPED 55 Geriatric Fitness Concepts (3 units)
SPED 56 Functional Aspects of Adaptive Fitness (3 units)
SPED 65 Fundamentals of Attention Deficit Disorders (4 units)
SPED 72 Stress, Wellness & Coping (3 units)
SPED 73 Introduction to Aquatic Exercise (3 units)
SPED 74 Principles of Adaptive Aquatic Fitness (3 units)

**Special Education Paraprofessional Certificate of Achievement**
(27 units)
Awarded upon completion of the core courses. General education courses are not required.

**THEATRE ARTS**

**Program Type(s):**
AA Degree; Certificate of Proficiency

Units required for major: 54, certificate: 100

**Associate Degree Requirements**

**Core Courses:** (26 Core & 12 Master units)
THTR 2A Introduction to Dramatic Literature (4 units)
THTR 2B Introduction to Dramatic Literature (4 units)
THTR 2C Introduction to Dramatic Literature (4 units)
THTR 20A Acting I (4 units)
THTR 20B Acting II (4 units)
THTR 20C Acting III (4 units)
THTR 71X Fundamentals of Stage Management (2 units)

**Master Courses (12 units)**
THTR 1 Theatre Arts Appreciation (4 units)
THTR 5B Playwriting (4 units)
or CRWR 36B Playwriting (4 units)
or VART 5B Playwriting (4 units)
THTR 7 Introduction to Directing (4 units)
THTR 8 Multicultural Performing Arts in Modern America (4 units)
THTR 20D Acting IV (4 units)
THTR 20E Advanced Acting V (4 units)
THTR 21 Introduction to Technical Theatre (1 unit)
THTR 21A Scenery & Property Construction (3 units)
THTR 38 Movement Practicum for the Actor (2 units)
THTR 40A Basic Theatrical Make-Up (4 units)
THTR 40B Theatrical Make-up for Production (4 units)
THTR 46 Voice & Diction (4 units)
THTR 48 Voice Practicum for the Actor (2 units)
THTR 53 Auditioning for Theatre (2 units)
THTR 54 Actor’s Workshop (4 units)
THTR 58 Movement for the Actor: Stage Combat (1 unit)
THTR 62 Acting for Film & Television (2 units)
THTR 71 Fundamentals of Stage Management (4 units)
THTR 75 Introduction to Fashion & Costume Construction (4 units)
THTR 76 Introduction to Fashion History & Costume Design (4 units)

**Support Courses:** (12 units)
THTR 44 Production Projects (4 units)
THTR 47, X, Y Music Theatre Production Workshop (3–10 units)
THTR 49, X, Y or Z Rehearsal & Performance (2–8 units)
THTR 50 Production Projects in Theatre (2 units)
THTR 95 & X Theatre Summer Stock Workshop (3–6 units)

**Elective Courses:** (4 units)
THTR 6 Advanced Playwriting (4 units)
THTR 21B Intermediate Scenery & Property Construction (3 units)
THTR 21C Advanced Scenery & Property Construction (3 units)
THTR 34H Institute Seminar in Theatre Arts (1 unit)
THTR 35 Department Honors Projects in Drama (2 units)
THTR 42A Introduction to Scene Design (4 units)
THTR 61 The Theatre Live-On Stage (2 units)
THTR 72B Beginning CAD Drafting for the Theatre, Film & Television (4 units)
THTR 77 Introduction to Lighting Design & Technology (4 units)

[170] Many master courses are offered through the Foothill Theatre Conservatory, subject to audition approval, and taught on a two-year cycle. They are designed to give a thorough and comprehensive investigation of a specific area of the actor's training. They also may be used as electives upon completion of the requisite master courses.

[171] Master courses may also be used as electives; however no single course may be used to fulfill the course requirement and an elective course requirement.

*A minimum of 90 units required for the A.A./A.S. Degree, to include required courses, required electives, and graduation requirements, and these minimum proficiencies: ENGL 1A or ESL1 26, and MATH 105.
THTR 81 Contemporary Issues in Performance Seminar (1 unit)
THTR 85, X, Y & Z Directed Field Study in Theatre (1–4 units)
THTR 97, X, Y & Z Actor’s Ensemble (1–6 units)
THTR 99, X, Y Theatre Workshop (3–9 units)
DANC 9 Movement for Actors (2 units)
MUS 13A Class Voice I (1 unit)

Theatre Conservatory Certificate of Proficiency (100 units)[173]
NON-TRANSFERABLE[174]
Awarded upon successful completion of the Foothill Theatre Conservatory Program.

THEATRE TECHNOLOGY
Program Type(s):
AA Degree; Certificate of Achievement; Career Certificate

Units required for major: 43, certificate: 25–43

Associate Degree Requirements*
Core Courses: (26 units)
THTR 1 Theatre Arts Appreciation (4 units)
THTR 20A Acting I (4 units)
THTR 21 Introduction to Technical Theatre (1 unit)
THTR 21A Scenery & Property Construction (3 units)
THTR 49 Rehearsal & Performance (2 units)
THTR 71 Fundamentals of Stage Management (4 units)
THTR 75 Introduction to Fashion & Costume Construction (4 units)
THTR 77 Introduction to Lighting Design & Technology (4 units)

Support Courses: (17 units)
THTR 21B Intermediate Scenery & Property Construction (3 units)
THTR 21C Advanced Scenery & Properties Construction (3 units)
THTR 72B Beginning CAD Drafting for the Theatre, Film & Television (4 units)
ART 4A Drawing I (3 units)
GID 50 Graphic Design Studio I (4 units)

Certificate of Achievement (43 units)
Awarded upon completion of the core and support courses.
General education courses are not required.

Career Certificate in Theatre Technology (25 units)
NON-TRANSFERABLE[173]
THTR 1 Theatre Arts Appreciation (4 units)
THTR 21 Introduction to Technical Theatre (1 unit)
THTR 21A Scenery & Property Construction (3 units)
THTR 49 Rehearsal & Performance (2 units)
THTR 71 Fundamentals of Stage Management (4 units)
THTR 75 Introduction to Fashion & Costume Construction (4 units)
THTR 77 Introduction to Lighting Design & Technology (4 units)
ART 4A Drawing I (3 units)

TRANSFER STUDIES: CSU GE
Program Type(s):
Certificate of Achievement[176]

Units required for certificate: 56

Certificate Course Requirements
Area A: Communication in the English Language & Critical Thinking (12 quarter units)
One course required from A1, A2 and A3.[177]
A1. Oral Communication: COMM 1A, 1AH, 1B, 1BH, 2, 3, 4
A2. Written Communication: ENGL 1A, 1AH, 1B or ESLL 26
A3. Critical Thinking: ENGL 1B, 1BH, 1C, 1CH; PHIL 1, 7, 50

Area B: Natural Sciences & Mathematics (12–15 quarter units)
Complete one course from category B1, B2 and B4. One Physical or Biological Science must include a laboratory experience (noted with asterisk).

B1. Physical Science: ASTR 10A, 10B, 10BH, 10L*; CHEM 1A*, 1B*, 1C*, 1D, 9L, 9L*, 10*, 12, 13*, 14*, 15*, 17, 40A*, 40B*, 40C*, 41, 45
B2. Biological & Life Science: ANTH 1, 1L*; BIOL 1A*, 1B*, 1C*, 1D, 9L, 9L*, 10*, 12, 13*, 14*, 15*, 17, 40A*, 40B*, 40C*, 41, 45
B4. Mathematics/Quantitative Reasoning: (Required for CSU Admission) CIS 18; MATH 1A, 1B, 1C, 1D, 2A, 2B, 10, 11, 12, 22, 44, 49, 51.

Area C: Arts, Literature, Philosophy & Foreign Language (12–15 quarter units)
Completion of a minimum of three courses, to include at least one course from the Arts and one course from the Humanities.[178]

C1. Arts (Art, Dance, Music, Theater): ART 1, 2A, 2AH, 2B, 2BH, 2C, 2CH, 2D, 2E, 3, 4A with 4AX, 4C with 4CX, 6, 11, 12, 13, 14, 45A with 45AX, 80; COMM 24, 30; DANC 10; MUS 1, 2A, 2B, 2C, 2D, 3A, 3B, 3C, 7, 7D, 7E, 8, 8H, 10, 11A, 11B, 11C, 27, 85A, 85B;

[173] Core courses (26 units); master courses (54 units); support courses (14 units); electives (6 units)
[174] Certificate completion will not appear on the student’s transcript.
[175] Certificate completion will not appear on the student’s transcript.
[176] This Certificate of Achievement is designed for students who intend to transfer to the California State University system (CSU). Students who complete the requirements for the Certificate of Achievement—CSU GE/Breadth with a grade of ‘C’ or better in each course will complete the lower-division requirements for the CSU General Education/Breadth pattern, as outlined and required by the California State University. Students should meet with a Foothill College counselor to determine whether the CSU GE/Breadth transfer pattern is the best option to meet their specific transfer goals.

[177] Required for CSU Admission
[178] Students who did not complete ENGL 1B for Area A3 should complete ENGL 1B as of the Area C courses. Courses may not be counted in more than one area.

*A minimum of 90 units required for the A.A./A.S. Degree, to include required courses, required electives, and graduation requirements, and these minimum proficiencies: ENGL 1A or ESLL 26, and MATH 105.

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PHIL 11; PHOT 1, 8, 8H, 10, 10H, 11, 11H; THTR 1, 2A, 2B, 2C (same as ENGL 42A, 42B, 42C), 8, 20A (with THTR 20AL), 46; VART 1, 2C, 3; WMN 15.

C2. Humanities (Literature, Philosophy, Foreign Languages):
CHIN 1, 2, 3, 4, 5, 6, 25A, 25B; COMM 12, 30, 46; CRWR 6, 39A, 39B, 40, 41A, 41B, 60; ENGL 1B, 18H, 5, 7H, 8, 11, 11H, 12, 14, 17, 22, 25, 25H, 26, 31, 40, 40H, 41, 42A, 42B, 42C (same as THTR 2A, 2B, 2C), 46A 46B, 46C, 48A, 48B, 48C; FA 1; GERM 1, 2, 3, 39; HIST 4A, 4B, 4C, 4CH; HUMN 1A, 1B; JAPN 1, 2, 3, 4, 5, 6, 25A, 25B, 33; LING 25, 25H, 26; PHIL 2, 4, 8, 20A, 20B, 22, 24, 25; SPAN 1, 2, 3, 4, 5, 6, 25A, 25B; THTR 2A, 2B, 2C; VART 2A, 2B.

Area D: Social, Political & Economic Institutions (12–15 quarter units)
Two CSU graduation requirements: minimum of three courses.

Requirement 1: HIST 17A, 17B or 17C and POLI 1 (F1 CSU American Institutions requirement)

Requirement 2: One course, selected from D-1 through D-0
D1. Anthropology & Archaeology: ANTH 2A, 2B, 3, 4, 5, 6, 8, 8L, 8LX, 8LY, 11, 50.
D2. Economics: ECON 1A, 1B, 9, 25; GEOG 5.
D3. Ethnic Studies:
ANTH 2B, 4, 6, 11; CHLD 11; COMM 12; ENGL 12, 31; HIST 10; MUS 8; PHIL 24, 25; PHOT 8, 8H; PSYCH 21, 22; SOC 21, 23; SOSC 20; WMN 21.
D4. Gender Studies: ART 2E; COMM 10; ENGL 22; PSYC 21; SOC 8; SOSC 21; WMN 5, 11, 15, 21.
D5. Geography: GEOG 2, 5, 9, 10.
D7. Interdisciplinary Social or Behavioral Science: CHLD 11, 55; ENGL 26; HIST 18; LING 26; PHED 2; SOC 8; SOSC 20.
D8. Political Science, Government & Legal Institutions: ECON 9; GERM 8; POLI 1, 2, 3, 3H, 9, 9H, 15, 15H; SPED 64.
D9. Psychology: CHLD 50A, 55; PSYC 1, 4, 10, 14, 21, 22, 25, 30, 33, 40, 49, 55; SOC 10, 21, 50; WMN 21.
D10. Sociology & Criminology: PSYC 10, 21, 30; SOC 1, 8, 10, 11, 15, 20, 21, 23, 30, 40; WMN 21.

Area E: Lifelong Understanding & Self Development
(4–5 quarter units)
E. BIOL 8; CNSL 2, 72; CRLP 70; DANC 1A, 1B, 3A, 3B, 4, 5, 6, 7, 9 (DANC limited as PE Activity); HLTH 21, any PHED/PE Activity course (limited to two units), PHED 4; PSYC 50; SOC 19, 40; SPED 52, 72.

**TRANSFER STUDIES: IGETC**

Program Types(s):
Certificate of Achievement

Units required for certificate: 49 (minimum)

[179] Some CSU campuses may require additional courses after transfer to meet this requirement.
[180] An IGETC certificate is designed for students who intend to transfer to the University of California (UC) or to the California State University (CSU). Students who satisfactorily complete the requirements for this Certificate of Achievement with a grade of "C" or better in each course will satisfy the Intersegmental General Education Transfer Curriculum (IGETC), thereby completing all lower-division general education units required by both the CSU and UC. Students should meet with a Foothill College counselor to determine whether the IGETC is the best option to meet their specific transfer goals. The Certificate of Achievement will be noted on the student’s official transcript. To earn this certificate, students must complete the coursework as outlined in this section. Residence requirement: a minimum of 16 units must be completed at Foothill College. Courses on the list are approved for a specific academic year. A course cannot be certified by Foothill College unless it was on the Foothill College IGETC list when it was completed. For information regarding the year in which courses are approved, access www.assist.org.

To be eligible to transfer to a UC campus, students must complete at least 90 units of UC transferable coursework with a GPA of 2.4 or better. To be eligible to transfer to a CSU campus, students must complete at least 90 units of CSU transferable courses with a GPA of 2.0 or better. Note that there are two differences between the IGETC requirements for CSU and UC. Students should follow the pattern of courses that meets their educational goals. Completion of the IGETC requirements as outlined satisfies the requirements of the Certificate of Achievement in Transfer Studies (IGETC). IGETC is not required for enrollment for UC or CSU campuses. Students can use www.assist.org to review major preparation courses and are strongly advised to consult with a counselor for educational planning to achieve successful admission to the university of their choice.

[181] Students transferring to a university must also request a formal IGETC certification through the Foothill College Evaluations Office just prior to transfer.

*A minimum of 90 units required for the A.A./A.S. Degree, to include required courses, required electives, and graduation requirements, and these minimum proficiencies: ENGL 1A or ESLI 26, and MATH 105.

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**Area 4: Social & Behavioral Sciences** (12–15 quarter units)
Complete at least three courses from two different subjects
ANTH 2A, 2B, 3, 4, 5, 6, 8; ART 2E; CHLD 55; COMM 10, 12; ECON 1A, 1B, 9, 25; GEOG 2, 4A, 4B, 4C, 4CH, 8, 9, H10, 15, 16, 16H, 17A, 17B, 18, 20; PHED 2; PHOT 8, 8H, POLI 1, 2, 2H, 3, 3H, 9, 9H, 15, 15H; PSYC 1, 4, 10, 14, 21, 22, 25, 30, 33, 40, 49, SOC 1, 8, 10, 11, 15, 20, 21, 23, 30, 40; SOSC 20; WMN 5, 11, 15, 21.

**American Institutions CSU Graduation Requirement:**
For graduation from CSU, students must complete two courses in American history. The following Foothill courses may be used to satisfy this requirement. Students may complete these courses in partial fulfillment of Area 4 And satisfy the American Institutions requirement. Students should complete either HIST 17A, 17B or 17C and POLI 1.

**Area 5: Physical & Biological Sciences** (9–12 quarter units)
Complete at least two courses, one Physical Science course and one Biological Science course; at least one must include a lab (courses with an asterisk* include lab).


Biological Sciences: ANTH 1, 1L*; BIOL 1A*, 1B*, 1C*, 1D, 9, 9L*, 10*, 12, 13*, 14*, 15*, 17, 40A*, 40B*, 40C*, 41*, 45; HORT 10*.

**Area 6: Language Other Than English** (UC requirement only)
Proficiency equivalent to two years of high school study in the same language with a grade of C or better or completion of one of the following courses. If Foothill College courses are not used to satisfy this requirement, students must provide official documentation of completion elsewhere:
CHIN 2, 3, 4, 5, 6; GERM 2, 3; JAPN 2, 3, 4, 5, 6; SPAN 2, 3, 4, 5, 6.

### VETERINARY TECHNOLOGY

**Program Type(s):**
AS Degree; Career Certificate

Units required for major: 92.5, certificate: 13

**Associate Degree Requirements***

**Core Courses:** (92.5 units)\(^{[183]}\)

**First Year**

**Fall Quarter: (11.5 units)**
V T 50 Current Topics in Veterinary Technology (.5 unit)
V T 53A Medical Terminology (1 unit)
V T 54A Comparative Veterinary Anatomy & Physiology for the Veterinary Technician (5 units)
V T 55 Animal Management & Clinical Skills I (4 units)
V T 75A Animal Care Skills (1 unit)

**Winter Quarter: (13.5 units)**
V T 50 Current Topics in Veterinary Technology (.5 unit)
V T 53B Medical Calculations (1 unit)
V T 60 Veterinary Office Practice (2 units)

**Spring Quarter: (14.5 units)**
V T 56 Animal Management & Clinical Skills II (4 units)
V T 75B Animal Care Skills (1 unit)
CHEM 30A Survey of Inorganic & Organic Chemistry (5 units)

**Second Year**

**Fall Quarter: (17.5 units)**
V T 50 Current Topics in Veterinary Technology (.5 unit)
V T 70 Fundamentals of Veterinary Diagnostic Imaging (4 units)
V T 81 Clinical Pathology Methods (5 units)
V T 83 Pharmacology for Technicians (4 units)
V T 87A Advanced Animal Care Skills (1 unit)
V T 91 Clinical Internship (3 units)

**Winter Quarter: (14.5 units)**
V T 50 Current Topics in Veterinary Technology (.5 unit)
V T 61 Animal Diseases (5 units)
V T 84 Anesthesiology for Technicians (5 units)
V T 87B Advanced Animal Care Skills (1 unit)
V T 92 Clinical Internship (3 units)

**Spring Quarter: (14.5 units)**
V T 50 Current Topics in Veterinary Technology (.5 unit)
V T 72 Principles of Veterinary Dentistry (2 units)
V T 85 Veterinary Emergency & Critical Care (4 units)
V T 87B Advanced Animal Care Skills (1 unit)
V T 93 Clinical Internship (4 units)
V T 95 Veterinary Technician Proficiency (2 units)
V T 95L Veterinary Technician Proficiency Laboratory (1 unit)

**Certificate information**
Entry-level education and training for those interested in starting a career in animal care and veterinary assisting. Stepping-stone into the AVMA-accredited Veterinary Technology Program for those interested in becoming a Registered Veterinary Technician (RVT).

**Online Veterinary Assisting Career Certificate (13 units)**

**NON-TRANSCRIPTABLE**\(^{[184]}\)
V T 52A Veterinary Assisting I (5 units)
V T 52B Veterinary Assisting II (5 units)
V T 88A Clinical Preceptorship I (1.5 units)
V T 88B Clinical Preceptorship II (1.5 units)

\(^{[182]}\) Either UC or CSU may limit credit.

\(^{[183]}\) All courses must be taken in sequence and completed with a grade of C or better.

\(^{[184]}\) Certificate completion will not appear on the student’s transcript.

*A minimum of 90 units required for the A.A./A.S. Degree, to include required courses, required electives, and graduation requirements, and these minimum proficiencies: ENGL 1A or ESLL 26, and MATH 105.
**VITICULTURE & ENOLOGY**

**Pending State Approval**

**Program Type(s):**

AS Degree; Certificate of Achievement

Units required for major: 48, certificate: 22–48

**Associate Degree Requirements**

**Core Courses:** (46 units)

- VITI 51 Applied Plant Science (4 units)
- VITI 52 Fall Practices (4 units)
- VITI 53 Winter Practices (4 units)
- VITI 55 Spring Practices (4 units)
- HORT 52A Horticultural Practices: Soils (3 units)
- HORT 52H Horticulture Practices: Integrated Pest Management (3 units)
- VITI 61A Introduction to Winemaking (4 units)
- VITI 61B Intermediate Winemaking (4 units)
- VITI 61C Advanced Winemaking (4 units)
- VITI 63 Contemporary Issues in Winemaking (4 units)
- VITI 65 Wine & Culture (4 units)
- VITI 67 Retail Winery Management (4 units)

**Elective Courses:** (2 units)

- VITI 90A Wine Appreciation (1 unit)
- VITI 90B Vineyard Establishment (2 units)
- VITI 90C Vineyard Management (2 units)
- VITI 90D Vine Pruning (1 unit)
- VITI 90E Basic Winemaking (2 units)
- HORT 80 Environmental Horticulture Skills (2 units)

**Certificate information**

Request a certificate information at [www.foothill.edu/bio/](http://www.foothill.edu/bio/)

**Certificate of Achievement in Viticulture & Enology**

(48 units)

Awarded after completion of the core and elective courses.

**Certificate of Achievement in Vineyard Management**

(22 units)

- VITI 51 Applied Plant Science (4 units)
- VITI 52 Fall Practices (4 units)
- VITI 53 Winter Practices (4 units)
- VITI 55 Spring Practices (4 units)
- HORT 52A Horticultural Practices: Soils (3 units)
- HORT 52H Horticulture Practices: Integrated Pest Management (3 units)

**Certificate of Achievement in Winemaking**

(24 units)

- VITI 61A Introduction to Winemaking (4 units)
- VITI 61B Intermediate Winemaking (4 units)
- VITI 61C Advanced Winemaking (4 units)
- VITI 63 Contemporary Issues in Winemaking (4 units)
- VITI 65 Wine & Culture (4 units)
- VITI 67 Retail Winery Management (4 units)

* A minimum of 90 units required for the A.A./A.S. Degree, to include required courses, required electives, and graduation requirements, and these minimum proficiencies: ENGL 1A or ESLL 26, and MATH 105.

Foothill College 2010–2011 [www.foothill.edu](http://www.foothill.edu)
Course Numbering System

The following course numbering system provides a detailed explanation regarding course number designations. When in doubt about the transferability of a course, always consult a counselor.

You are responsible for reviewing prerequisites and repeatability as noted in course descriptions. Only courses with substandard grades may be repeated. Consult a Foothill counselor for more information.

*Where there is a conflict between the catalog statements and published curriculum sheets, the latter will take precedence. Consult a counselor for the most current information.*

- Courses approved for transfer to the University of California are usually numbered 1–49. There are some exceptions to this rule; therefore, you should always consult with a counselor to verify course transferability. For more information, access [www.foothill.edu](http://www.foothill.edu) or [www.assist.org](http://www.assist.org). The term *degree applicable* signifies courses which apply to the associate degree and/or baccalaureate transfer degree.
- Courses designated 1–99 are baccalaureate in nature and are generally transferable to the California State University.
- Courses numbered 100 and above are not transferable.
- Courses numbered 200–99 are prerequisites for required courses that lead to the Associate in Arts and Associate in Science degree, and non-degree applicable credit courses.
- Courses numbered 300–399 are workshop, review and other courses offered to meet special collegiate needs of a community nature.
- Courses numbered 400–499 are non-credit, non-graded courses in senior education, special education or other areas that do not apply to the associate degree.
- Courses listed with an “S” suffix signify the first half of the course; a “T” suffix indicates the second half. Courses must be taken in sequential order; and both halves must be completed for credit.
- Community services courses are fee-based, and are scheduled and publicized separately from the state-supported courses identified in this catalog.
### ACADEMIC SKILLS

**Language Arts**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACAD 102</td>
<td>PUNCTUATION IMPROVEMENT</td>
<td>1 Unit</td>
</tr>
<tr>
<td>ACAD 104</td>
<td>SPELLING IMPROVEMENT</td>
<td>1 Unit</td>
</tr>
<tr>
<td>ACAD 105</td>
<td>WRITING BETTER SENTENCES</td>
<td>1 Unit</td>
</tr>
<tr>
<td>ACAD 108</td>
<td>RESEARCH PAPER ASSISTANCE</td>
<td>1 Unit</td>
</tr>
<tr>
<td>ACAD 110</td>
<td>GRAMMAR IMPROVEMENT</td>
<td>1 Unit</td>
</tr>
<tr>
<td>ACAD 112</td>
<td>VOCABULARY IMPROVEMENT</td>
<td>1 Unit</td>
</tr>
</tbody>
</table>

**ACAD 102 PUNCTUATION IMPROVEMENT** 1 Unit
Advisory: Pass/No Pass.
May be taken 3 times for credit.
3 hours laboratory.
Computerized or text-based instruction in punctuation skills. Students begin at their own level, based on diagnostic assessment. Areas covered can include analysis and application of punctuation rules, usage and grammar. Materials available at beginning, intermediate and advanced levels.

**ACAD 104 SPELLING IMPROVEMENT** 1 Unit
Advisory: Pass/No Pass.
May be taken 3 times for credit.
3 hours laboratory.
Computerized or text-based course designed to improve spelling skills. Students begin at their own level, based on diagnostic assessment. Areas covered can include review of phonics, homonyms and analysis, and application of spelling rules. Emphasis on integrating these rules into writing. Materials available at beginning and intermediate levels.

**ACAD 105 WRITING BETTER SENTENCES** 1 Unit
Advisory: Pass/No Pass.
May be taken 3 times for credit.
3 hours laboratory.
Computerized or text-based instruction in improving sentence skills. Students begin at their own level, based on diagnostic assessment. Areas covered can include review of grammar and punctuation rules as relevant to the writing process and introduction to simple, compound, complex and embedded sentence structures. Emphasis on integrating subskills into the whole writing process. Materials available at beginning, intermediate and advanced levels.

**ACAD 108 RESEARCH PAPER ASSISTANCE** 1 Unit
Advisory: Pass/No Pass.
May be taken 3 times for credit.
3 hours laboratory.
Individualized course designed to teach basic techniques for the research paper. Skills include selection of topic, collection of data, requirements of form, MLA documentation, and production of a short research paper. One-on-one instruction, conferences, and on-going assessment are the methods used.

**ACAD 110 GRAMMAR IMPROVEMENT** 1 Unit
Advisory: Pass/No Pass.
May be taken 3 times for credit.
3 hours laboratory.
Computerized or text-based instruction in grammar. Students begin at their own level, based on diagnostic assessment. Areas covered can include analysis and application of structural elements, punctuation rules and sentence boundaries. Materials available at beginning, intermediate and advanced levels.

**ACAD 112 VOCABULARY IMPROVEMENT** 1 Unit
Advisory: Pass/No Pass.
May be taken 3 times for credit.
3 hours laboratory.
Computerized or text-based instruction in improving vocabulary skills. Students begin at their own level, based on diagnostic assessment. Areas covered can include understanding of word parts, analysis of context clues, and learning of new words. Materials available at beginning, intermediate and advanced levels.

### ACCOUNTING

**Business & Social Sciences**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ACTG 1A</td>
<td>FINANCIAL ACCOUNTING I</td>
<td>5 Units</td>
</tr>
<tr>
<td>ACTG 1B</td>
<td>FINANCIAL ACCOUNTING II</td>
<td>5 Units</td>
</tr>
<tr>
<td>ACTG 1C</td>
<td>MANAGERIAL ACCOUNTING</td>
<td>5 Units</td>
</tr>
<tr>
<td>ACTG 51A</td>
<td>INTERMEDIATE ACCOUNTING I</td>
<td>4 Units</td>
</tr>
<tr>
<td>ACTG 51B</td>
<td>INTERMEDIATE ACCOUNTING II</td>
<td>4 Units</td>
</tr>
</tbody>
</table>

**ACTG 1A FINANCIAL ACCOUNTING I** 5 Units
Advisory: Eligibility for MATH 220 and ESLL 26.
5 hours lecture.
Continuing study of accounting information system for decision making. Fixed assets and intangible assets, current liabilities, corporations, bonds, investments, statement of cash flows and financial statement analysis. [Transferability: UC/CSU]

**ACTG 1B FINANCIAL ACCOUNTING II** 5 Units
Prerequisite: ACTG 1A.
Advisory: Eligibility for MATH 220 and ESLL 26
5 hours lecture.
Study of accounting information system for internal uses. Process costing, job-order costing, activity-based costing, cost behavior and cost-volume profit analysis, budgeting, performance evaluation, and capital investment analysis. [Transferability: UC/CSU]

**ACTG 1C MANAGERIAL ACCOUNTING** 5 Units
Prerequisite: ACTG 1B.
Advisory: MATH 10 or high school algebra.
5 hours lecture.
Study of accounting information system for internal uses. Process costing, job-order costing, activity-based costing, cost behavior and cost-volume profit analysis, budgeting, performance evaluation, and capital investment analysis. [Transferability: UC/CSU]

**ACTG 51A INTERMEDIATE ACCOUNTING I** 4 Units
Prerequisite: ACTG 1B.
4 hours lecture.
Review of financial accounting standards, accounting information processing systems and the resulting financial statements. Selected topics related to present value applications, valuation techniques, and revenue recognition. Also covered, accounting for cash, receivables, and inventory. [Transferability: CSU]

**ACTG 51B INTERMEDIATE ACCOUNTING II** 4 Units
Prerequisite: ACTG 51A.
4 hours lecture.
Accounting for PP&E, intangible assets, current liabilities, long-term liabilities, and equity. [Transferability: CSU]
ACTG 51C INTERMEDIATE ACCOUNTING III 4 Units
Prerequisite: ACTG 51B
4 hours lecture.
Accounting for Investments, Income Taxes, Pensions and Post-retirement Benefits, Leases, and Accounting Changes and Error Analysis; also covered, the Cash Flows Statement, and Full Disclosure in Financial Reporting. [Transferability: CSU]

ACTG 60 ACCOUNTING FOR SMALL BUSINESS 5 Units
5 hours lecture.
Pre-professional accounting course introducing the theory of double-entry bookkeeping/accounting. Emphasis on basic accounting cycle, elementary accounting principles and procedures, and financial records. [Transferability: CSU]

ACTG 64A COMPUTERIZED ACCOUNTING PRACTICE USING QUICKBOOKS 2 Units
Prerequisite: ACTG 1A or equivalent experience.
4 hours lecture-laboratory.
Focus on using QuickBooks to record financial data. Reviewing the accounting cycle, processing business transactions and preparing financial statements. [Transferability: CSU]

ACTG 64B COMPUTERIZED ACCOUNTING PRACTICE USING EXCEL 2 Units
Prerequisite: ACTG 1B or equivalent experience.
4 hours lecture-laboratory.
Practice in using an electronic spreadsheet program to organize and process financial and managerial accounting data. Includes research on the Internet. [Transferability: CSU]

ACTG 65 PAYROLL & BUSINESS TAX ACCOUNTING 4 Units
Prerequisite: ACTG 1B.
4 hours lecture.
Presentation of basic payroll procedures used in business today. Provides practice in recording procedures and preparation of tax returns. [Transferability: CSU]

ACTG 66 COST ACCOUNTING 5 Units
Prerequisite: ACTG 1C or equivalent experience.
5 hours lecture.
Fundamentals of activity-based costing, job-order, process cost, and standard cost accounting systems. [Transferability: CSU]

ACTG 67 TAX ACCOUNTING 5 Units
Advisory: Eligibility for MATH 220 and ESLL 26.
5 hours lecture.
Current Federal and California Income Tax Law as it relates to individuals, emphasizing practical application, tax planning and tax form preparation. [Transferability: CSU]

ACTG 68A ADVANCED TAX ACCOUNTING I 4 Units
Corequisite: Concurrent enrollment in ACTG 67 or equivalent experience.
May be taken 3 times for credit.
4 hours lecture.
Current federal income tax law as it relates to sole proprietorships and partnerships. [Transferability: CSU]

ACTG 68B ADVANCED TAX ACCOUNTING II 4 Units
Prerequisite: ACTG 68A.
May be taken 3 times for credit.
4 hours lecture.
Current federal income tax law as it relates to corporations, estate, trust, and gift taxes. [Transferability: CSU]

ACTG 68C ADVANCED TAX ACCOUNTING III 3 Units
Advisory: Eligibility for MATH 220 and ESLL 26.
May be taken 3 times for credit.
3 hours lecture.
Current federal income tax administration and procedures and review of Enrolled Agent Exam. [Transferability: CSU]
<table>
<thead>
<tr>
<th>Course Code</th>
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</thead>
<tbody>
<tr>
<td>ALCB 222</td>
<td>JOB SEARCH SKILLS</td>
<td>1</td>
</tr>
<tr>
<td>ALCB 222X</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>ALCB 222Y</td>
<td></td>
<td>2.5</td>
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<tr>
<td>ALCB 222Z</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

Non-degree applicable credit course. Prerequisite: Medically verified disability. Any combination of ALCB 222–222Z may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit. 2 hours lecture-laboratory, .5 hour laboratory for each unit of credit. Preparation and skills necessary for re-entry into the job market. Emphasis on technological changes impacting the job search. Includes use of the Internet for job search.

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<tbody>
<tr>
<td>ALCB 223</td>
<td>CAREER RESOURCES</td>
<td>.5</td>
</tr>
<tr>
<td>ALCB 223X</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>ALCB 223Y</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>ALCB 223Z</td>
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<td>3</td>
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</tbody>
</table>

Non-degree applicable credit course. Prerequisite: Medically verified disability. Any combination of ALCB 223–223Z may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit. 3 hours laboratory for each unit of credit. Introduction and hands-on use of resources available to research and find employment in the Bay Area. Resources include daily job postings, fax, Internet, telephones, company leads, casual labor, videos and career library. Designed for the disabled student.

<table>
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<tr>
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<tbody>
<tr>
<td>ALCB 224</td>
<td>EMPLOYMENT ISSUES</td>
<td>.5</td>
</tr>
<tr>
<td>ALCB 224X</td>
<td></td>
<td>1</td>
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<tr>
<td>ALCB 224Y</td>
<td></td>
<td>2</td>
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<tr>
<td>ALCB 224Z</td>
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<td>3</td>
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</tbody>
</table>

Non-degree applicable credit course. Prerequisite: Medically verified disability. Any combination of ALCB 224–224Z may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit. 2 hours lecture-laboratory for each unit of credit. Exploration of work-related issues, situations and decision-making skills related to employment and job retention. Emphasis on problems facing the re-entry worker and the disabled.

<table>
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<tbody>
<tr>
<td>ALCB 229</td>
<td>WORK ADJUSTMENT FOR THE DISABLED</td>
<td>.5</td>
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<tr>
<td>ALCB 229X</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>ALCB 229Y</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>ALCB 229Z</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

Non-degree applicable credit course. Prerequisite: Medically verified disability. Any combination of ALCB 229–229Z may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit. 3 hours laboratory for each unit of credit. Designed to help the student develop realistic work behavior. Focus on group interaction, sharing of attitudes, fears, hopes and expectations as they relate to work. Student participation in vocational testing to assess interest and abilities.

<table>
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<tbody>
<tr>
<td>ALCB 230</td>
<td>INTRODUCTION TO THE COMPUTER FOR THE DISABLED</td>
<td>2</td>
</tr>
</tbody>
</table>

Non-degree applicable credit course. Prerequisite: Medically verified disability. May be taken 6 times for credit. 4 hours lecture-laboratory, 2 hours terminal time. Introduction to the computer and its uses for the student with little or no computer experience with a word processor and file management techniques. Discussion of other software applications. This course is designed for the student with a medically verified disability.

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</thead>
<tbody>
<tr>
<td>ALCB 231</td>
<td>CAREER PLANNING &amp; PERSONAL ASSESSMENT</td>
<td>.5</td>
</tr>
<tr>
<td>ALCB 231X</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>ALCB 231Y</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>ALCB 231Z</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

Non-degree applicable credit course. Prerequisite: Medically verified disability. Any combination of courses ALCB 231–231Z may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit. 1.5 hours laboratory for each .5 unit of credit. Designed to help students develop a personal profile that identifies sociological, psychological and physiological perspectives for success in work, education and personal life.

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<tr>
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<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ALCB 240</td>
<td>HEALTHIER LIVING WITH ARTHRITIS</td>
<td>1</td>
</tr>
</tbody>
</table>

Non-degree applicable credit course. Prerequisite: Medically verified disability. May be taken 6 times for credit. 1 hour lecture-laboratory, 1 hour terminal time. Online self-management workshop for people with arthritis. Didactic, interactive content posted weekly with at least 2 additional log-on during the week to engage in discussions with classmates and moderators and complete online assignments.

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<tr>
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<tbody>
<tr>
<td>ALCB 403</td>
<td>CHANGING GENERATIONS</td>
<td>0</td>
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Non-degree applicable non-credit course. Prerequisite: Medically verified disability. Unlimited repeatability. 1 hour laboratory. Designed to offer an opportunity for young and old to share a relationship.

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<tr>
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</thead>
<tbody>
<tr>
<td>ALCB 406</td>
<td>WORLD NEWS DISCUSSION</td>
<td>0</td>
</tr>
</tbody>
</table>

Non-degree applicable non-credit course. Prerequisite: Medically verified disability. Unlimited repeatability. 1 hour laboratory. Designed for the disabled to study world news by examining turning points in history, comparing and contrasting them with current world events to enhance memory retention and self-esteem.

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</thead>
<tbody>
<tr>
<td>ALCB 407</td>
<td>SOCIAL CHANGE</td>
<td>0</td>
</tr>
</tbody>
</table>

Non-degree applicable non-credit course. Prerequisite: Medically verified disability. Unlimited repeatability. 1 hour laboratory. Designed for the disabled to improve memory and understanding of changes in society to increase awareness of the impact of these changes and increase social interaction.

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<tr>
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</thead>
<tbody>
<tr>
<td>ALCB 408</td>
<td>ART APPRECIATION</td>
<td>0</td>
</tr>
</tbody>
</table>

Non-degree applicable non-credit course. Prerequisite: Medically verified disability. Unlimited repeatability. 1 hour laboratory. Designed for the disabled student to acquire an appreciation of artists and their work. Provides opportunity for social interaction and intellectual stimulation made possible through shared knowledge of artists and their work.

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<th>Units</th>
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<tbody>
<tr>
<td>ALCB 409</td>
<td>MUSIC APPRECIATION</td>
<td>0</td>
</tr>
</tbody>
</table>

Non-degree applicable non-credit course. Prerequisite: Medically verified disability. Unlimited repeatability. 1 hour laboratory. Designed for the disabled student to acquire appreciation of composers and their work. Emphasis on identification and recall of auditory input.
ALCB 411,X,Y  HEALTH ISSUES  0 Units  
Non-degree applicable non-credit course.  
Prerequisite: Medically verified disability.  
Unlimited repeatability.  
1 hour laboratory.  
Designed for the disabled to acquire information and develop strategies for managing the physical, social and psychological effects of illness.  

ALCB 413,X,Y  RELAXATION TECHNIQUES  0 Units  
Non-degree applicable non-credit course.  
Prerequisite: Medically verified disability.  
Unlimited repeatability.  
1 hour laboratory.  
Designed for the disabled student to acquire information about and develop techniques for achieving relaxation by releasing mental and physical tension.  

ALCB 414,X,Y  STRESS MANAGEMENT  0 Units  
Non-degree applicable non-credit course.  
Prerequisite: Medically verified disability.  
Unlimited repeatability.  
1 hour laboratory.  
Designed for the disabled student to recognize stress symptoms and become aware of signals which cause triggers in stress. Learn stress management skills from passive to active take-charge role.  

ALCB 421,X,Y  AROUND THE WORLD IN TRAVEL STUDY  0 Units  
Non-degree applicable non-credit course.  
Prerequisite: Medically verified disability.  
Unlimited repeatability.  
1 hour laboratory.  
Designed for the disabled student to recall personal travel. Focuses on the discussion of geography, history, religions and arts of other cultures to increase knowledge and social interaction, and improve memory retention.  

ALCB 431,X–Z  ANALYSIS OF CURRENT EVENTS  0 Units  
Non-degree applicable non-credit course.  
Prerequisite: Medically verified disability.  
Unlimited repeatability.  
1 hour laboratory.  
Designed for the disabled student to acquire information about current events with an emphasis on comparing and contrasting current with past events to enhance memory retention and self-esteem.  

ALCB 451,X–Z  DRAWING & PAINTING  0 Units  
Non-degree applicable non-credit course.  
Prerequisite: Medically verified disability.  
Unlimited repeatability.  
1 hour laboratory.  
Designed for the disabled student to improve expressive capability, manipulatory skills and eye-hand coordination, increase self-esteem and increase social interaction through the use of painting, drawing and sketching materials, tools, and techniques to create two-dimensional art in a group setting.  

ALCB 455,X–Z  MUSIC & MOVEMENT  0 Units  
Non-degree applicable non-credit course.  
Prerequisite: Medically verified disability.  
Unlimited repeatability.  
1 hour laboratory.  
Designed for the disabled student to improve flexibility and mobility through exercise performed to music.  

ALCB 456,X–Z  CRAFTS  0 Units  
Non-degree applicable non-credit course.  
Prerequisite: Medically verified disability.  
Unlimited repeatability.  
1 hour laboratory.  
Designed for the disabled student to improve expressive capability, manipulatory skills and eye-hand coordination, increase self-esteem and increase social interaction through the use of seasonal, leather, wood, fabric, yarn and paper materials to create crafts projects in a group setting.  

ALCB 462,X–Z  VERBAL EXPRESSION  0 Units  
Non-degree applicable non-credit course.  
Prerequisite: Medically verified disability.  
Unlimited repeatability.  
1 hour laboratory.  
Designed for the disabled student to teach techniques in verbal communication specifically to improve family, social and work-related situations.  

ALCB 463,X,Y  CREATIVE WRITING  0 Units  
Non-degree applicable non-credit course.  
Prerequisite: Medically verified disability.  
Unlimited repeatability.  
1 hour laboratory.  
Designed for the disabled student to present written autobiographical, fictional and non-fictional experiences which are shared orally for both appreciation and constructive input to enhance self-esteem, memory retention and writing ability.  

ALCB 464,X,Y  POETRY & LITERATURE  0 Units  
Non-degree applicable non-credit course.  
Prerequisite: Medically verified disability.  
Unlimited repeatability.  
1 hour laboratory.  
Designed for the disabled student to acquire knowledge and appreciation in poetry and literature with emphasis of its various forms and recall of auditory input.  

ALCB 465,X–Z  CREATIVE SELF-EXPRESSION  0 Units  
Non-degree applicable non-credit course.  
Prerequisite: Medically verified disability.  
Unlimited repeatability.  
1 hour laboratory.  
Designed for the disabled student to provide directed experiences in self-expression. Emphasis on various activities designed to enhance physical and cognitive creative expression and enable the student to develop independent creative activities through adapted drama, music, art and writing.  

ALCB 481,X–Z  EXERCISE FOR THE OLDER DISABLED ADULT  0 Units  
Non-degree applicable non-credit course.  
Prerequisite: Medically verified disability.  
Unlimited repeatability.  
1 hour laboratory.  
Designed for the disabled student to improve flexibility, range of movement, muscular strength and endurance.
This course is intended to contribute to your understanding of your relationship with death, as an individual, as a health professional, and as a member of society. It explores the universal phenomena of dying, death, and bereavement with a special emphasis on academic and interpersonal skills that allow individuals to increase their understanding and appreciation of cultural differences and similarities, within, among, and between groups. [Transferability: CSU]

GERN 56 AGING & DIVERSITY 3 Units
3 hours lecture.
The course introduces the student to the cross-cultural and diverse issues of aging, focusing on psychological and social aspects for diverse subgroups within the U.S. Students will learn to effectively communicate with aging clients of diverse ethnic, religious, gender, sexual orientation, and cultural backgrounds. Through readings, lectures, films, discussions, case studies, and other interactive learning tools, the course will help students to develop the necessary skills to engage and work with aging clients with diverse backgrounds and perspectives. Personal reflections, experiences, beliefs and behaviors will be explored. [Transferability: CSU]
ALLD 601 UNDERSTANDING LEARNING DIFFERENCES 4 Units
Formerly: ALLD 201
Non-degree applicable credit course.
Focuses on learning differences, learning theory and strategies related to specific learning challenges. Create learning portfolio to identify learning style, strengths and weaknesses. Demonstrate understanding of learning differences, methods of retention and output of knowledge. Cognitive and achievement testing will be provided to identify students, learning profile.

ALLD 602 MATH SUPPORT FOR PRE-ALGEBRA 1 Unit
Non-degree applicable basic skills course.
Corequisite: Student must be registered in a pre-algebra level math course.
May be taken 6 times for credit.
3 hours laboratory.
Provides support and instruction on an individual/ small group basis to students with disabilities. Practice in understanding pre-algebra concepts and skills including but not limited to arithmetic, fractions, decimals, percentages and ratios.

ALLD 603 STUDENT SUCCESS STRATEGIES .5 Unit
Formerly: ALLD 401
Non-degree applicable credit course.
May be taken 6 times for credit.
.5 hour lecture.
In this course, students will develop awareness and understanding of their disabilities as they enter college life at Foothill College. All students who require services and accommodations for the first time are highly encouraged to take this course. Students will learn the policies and procedures for obtaining accommodations and other services at Disability Resource Center. Further the course will present techniques for students to self-advocate, utilize services outside of Disability Resource Center (DRC), develop relationships with faculty members to support learning.

ADAPTIVE LEARNING: SPECIAL EDUCATION

Adaptive Learning (650) 949-7332
www.foothill.edu/al/

SPED 50 INTRODUCTION TO ADAPTIVE FITNESS TECHNIQUES 3 Units
2 hours lecture, 3 hours laboratory.
This course is designed to give fitness professionals basic knowledge and skills necessary to work with the disabled and/or older adult client in an adaptive fitness setting. Provides requisite information about the field of adaptive fitness. Gives a basic understanding of the impact disability has on physical/motor function, focusing on muscles, movement, and gait. Covers contraindicated exercises and transfer techniques. Transportation to off-campus field work sites is required. [Transferability: CSU]

SPED 52 POSITIVE AGING 3 Units
Advisory: SPED 55 is highly recommended.
2 hours lecture, 3 hours laboratory.
Exploration of how aging is viewed in the U.S. and other parts of the world with emphasis on the physiological, psychological and sociological aspects. Differences between successful and unsuccessful aging will be scrutinized, including preparation for retirement and end of life issues. Considerations of aging across the lifespan and how different cultures view aging, death and dying. [Foothill GE: United States Culture & Communities, Lifelong; Transferability: CSU]

SPED 54 PRINCIPLES OF THERAPEUTIC EXERCISE 3 Units
May be taken 3 times for credit at 3-year intervals.
2 hours lecture, 3 hours laboratory.
Focuses on skills necessary for fitness professionals to design and implement a therapeutic exercise program for a person with a chronic condition after discharge from a clinical setting. Discusses a full range of chronic conditions seen in the adult population from arthritis to Parkinson’s disease. Covers recommended exercises, contraindicated exercises, determining therapy completion point and when to begin post-therapy. [Transferability: CSU]

SPED 55 GERIATRIC FITNESS CONCEPTS 3 Units
2 hours lecture, 3 hours laboratory.
Overview of fitness concepts and techniques necessary to work with older adults within the psycho-motor domain. Explores physiological aspects of aging and the role progressive exercise plays in slowing down the physical decline often displayed in many inactive older adults. [Transferability: CSU]

SPED 56 FUNCTIONAL ASPECTS OF ADAPTIVE FITNESS 3 Units
2 hours lecture, 3 hours laboratory.
Fundamental theories of functional fitness within the psycho-motor domain. Explores functional exercise programs and adapted exercises for persons with functional limitations. Case studies and sample exercise routines will be part of the student portfolio. [Transferability: CSU]

SPED 57 WORKING WITH SPECIAL POPULATIONS 3 Units
2 hours lecture, 3 hours laboratory.
Designed to develop effective techniques to meet the learning style of the atypical learner. Focus will be to provide student with skills and strategies to work with special populations. Application of principles through hands-on experience and internships. [Transferability: CSU]

SPED 59 SELECTED TOPICS IN SPECIAL EDUCATION 2 Units
May be taken 2 times for credit.
2 hours lecture.
Exploring the field of rehabilitation and special education, including a survey of upper division course work and graduate level degrees. An introduction to the variety of careers working with special populations in a variety of settings, including education, industry and non-profit organizations. Course will include a forum of guest speakers, field practicum and research project. [Transferability: CSU]

SPED 61 INTRODUCTION TO DISABILITIES 4 Units
Advisory: Eligibility for ENGL 1A.
4 hours lecture.
Overview of all major categories and characteristics of disabilities. Physical, Sensory, Developmental and Learning Disabilities discussed. Cultural/experiential aspects of disabilities from the perspectives of disabled individuals explored through readings and guest speakers. Contrasts disabled with non-disabled culture including cross-cultural perspectives of the disabled experience. Emphasis placed on recognition of strengths and abilities to provide strategies for instruction and accommodations. [Foothill GE: United States Culture & Communities; Lifelong; Transferability: CSU]

SPED 62 PSYCHOLOGICAL ASPECTS OF DISABILITY 4 Units
4 hours lecture.
Psychological aspects of disability, including psychosocial, cultural, and physical considerations of disability and illness. [Transferability: CSU]

SPED 63 LEARNING DISABILITIES 4 Units
4 hours lecture.
Focuses on the field of learning disabilities in terms of function of the information processing system for learning theories and practices that have influenced the field. Explores best practices for effective instruction for people with learning disabilities. [Transferability: CSU]

SPED 64 DISABILITY & THE LAW 4 Units
4 hours lecture.
Legal rights of the disabled, beginning with historical roots of the disability movement in the United States. Earliest to current legislation governing access to education, employment, public and private facilities. Legal definitions of disability. Brings student up to the present with federal, state and local legal mandates and explores in detail the
118
Certification.
will prepare the student to apply for the Aquatic Exercise Association kinesiology and aquatic principles. Successful completion of this class instruction. The course includes essential anatomy, physiology, personal wellness, and academic success and model these strategies and understand effective coping strategies to promote self awareness, anxiety. Examine the social and psychological factors that contribute to these problems and the patterns of behavior which result. Learn, utilize, and understand effective coping strategies to promote self awareness, personal wellness, and academic success and model these strategies for members of the community. Emphasis placed on mental health and application of self-help skills. [Foothill GE: Lifelong Understanding; Transferability: CSU]

SPED 69 SPECIAL EDUCATION STRATEGIES & PRACTICUM 4 Units
3 hours lecture, 3 hours laboratory.
An overview of the field of special education. Focuses on components of instruction for students with disabilities. Field work activity required. [Transferability: CSU]

SPED 71 SPECIAL TOPICS IN THE FIELD OF FITNESS THERAPY 3 Units
2 hours lecture, 3 hours laboratory.
Designed to provide the Adaptive Fitness Technician student an opportunity to augment skills, experience and knowledge base through additional practical work experience, directed readings, and/or by viewing instructional videos. The student will have the opportunity to work independently to increase their understanding of a variety of chronic medical conditions as related to fitness. [Transferability: CSU]

SPED 72 STRESS, WELLNESS & COPING 3 Units
3 hours lecture.
Explore and become familiar with symptoms of stress, depression, and anxiety. Examine the social and psychological factors that contribute to these problems and the patterns of behavior which result. Learn, utilize, and understand effective coping strategies to promote self awareness, personal wellness, and academic success and model these strategies for members of the community. Emphasis placed on mental health and application of self-help skills. [Foothill GE: Lifelong Understanding; Transferability: CSU]

SPED 73 INTRODUCTION TO AQUATIC EXERCISE 3 Units
2 hours lecture, 3 hours laboratory.
This course provides foundation information for water exercise instruction. The course includes essential anatomy, physiology, kinesiology and aquatic principles. Successful completion of this class will prepare the student to apply for the Aquatic Exercise Association Certification. [Transferability: CSU]

SPED 74 PRINCIPLES OF ADAPTIVE AQUA FITNESS 3 Units
2 hours lecture, 3 hours laboratory.
This course provides the essential information needed to provide adaptive aquatics exercise instruction. The student will develop an understanding of how water training principles can be used with individuals with chronic conditions, adaptive teaching techniques will be addressed, and the application of deep and shallow water fitness routines for the disabled will be explored. Additionally, techniques of how to assist a disabled client to enter and exit a pool safely will be demonstrated. [Transferability: CSU]

SPED 75 INTERNSHIP IN ADAPTIVE AQUATICS 3 Units
May be taken 2 times for credit.
2 hours lecture, 3 hours laboratory.
The internship is designed to provide the adaptive aquatics trainee with hands-on skills and experience with clients. The internship will include performing client assessments and receiving feedback from lead teachers. [Transferability: CSU]

ADAPTIVE LEARNING: TRANSITION TO WORK

Adaptive Learning (650) 949-7017 www.foothill.edu/al/

ALTW 201 BASIC ENGLISH FOR THE DISABLED STUDENT 1 Unit
Formerly: ALTW 104
Non-degree applicable credit course.
Prerequisite: Medically verified disability.
May be taken 2 times for credit.
2 hours lecture-laboratory.
Basic English skills for the disabled. Emphasis on grammar, sentence and paragraph structure and practical applications.

ALTW 202 BASIC MATH SKILLS FOR THE DISABLED STUDENT 1 Unit
Formerly: ALTW 105
Non-degree applicable credit course.
Prerequisite: Medically verified disability.
May be taken 2 times for credit.
2 hours lecture-laboratory.
Basic math skills for the disabled. Emphasis on basic math functions, money handling and practical applications.
ALTW 204 COMMUNICATION SKILLS FOR THE DISABLED STUDENT 1 Unit
Formerly: ALTW 108
Non-degree applicable credit course.
Prerequisite: Medically verified disability.
May be taken 2 times for credit.
4 hours lecture-laboratory.
Enhancement of self-esteem and communication skills in order to increase confidence in interpersonal interactions.

ALTW 205 OFFICE SKILLS FOR THE DISABLED STUDENT 2 Units
Formerly: ALTW 110
Non-degree applicable credit course.
Prerequisite: Medically verified disability.
May be taken 2 times for credit.
4 hours lecture-laboratory, 1 hour terminal time.
Practical office skills needed for successful employment. Designed for the disabled student.

ALTW 206 BEGINNING WORD PROCESSING FOR THE DISABLED STUDENT 3 Units
Formerly: ALTW 112
Non-degree applicable credit course.
Prerequisite: Medically verified disability.
May be taken 2 times for credit.
2 hours lecture, 2 hours lecture-laboratory, 2 hours terminal time.
Introduction to the computer and its uses for the student with little or no computer experience. Emphasis on word processing. Designed for the disabled student.

ALTW 207 RESOURCES IN THE COMMUNITY FOR THE DISABLED STUDENT 1 Unit
Formerly: ALTW 115
Non-degree applicable credit course.
Prerequisite: Medically verified disability.
May be taken 2 times for credit.
Overview of community resources for the disabled student.

ALTW 208 JOB TRAINING/INTERNSHIP FOR THE DISABLED STUDENT 1.5 Units
Non-degree applicable credit course.
Prerequisite: Medically verified disability.
May be taken 6 times for credit.
4.5 hours laboratory.
Practical skills needed for successful employment. Emphasis on on-the-job training experiences; discussion and evaluation of one's performance.

ALTW 209 SOCIAL SKILLS FOR THE DISABLED STUDENT 1 Unit
Formerly: ALTW 117
Non-degree applicable credit course.
Prerequisite: Medically verified disability.
May be taken 2 times for credit.
2 hours lecture-laboratory.
Enhancement of self-esteem and socialization skills in order to increase confidence in personal and social interactions.

ALTW 210 OFFICE APPLICATIONS FOR THE DISABLED STUDENT 2 Units
Formerly: ALTW 120
Non-degree applicable credit course.
Prerequisite: Medically verified disability.
May be taken 2 times for credit.
4 hours lecture-laboratory, 1 hour internship.
Practical office applications needed for successful employment. Focuses on business etiquette, office equipment and adaptations.

ALTW 211 INTRODUCTION TO EXCEL FOR THE DISABLED STUDENT 3 Units
Non-degree applicable credit course.
Prerequisite: Medically verified disability.
May be taken 2 times for credit.
2 hours lecture, 2 hours lecture-laboratory, 2 hours terminal time.
Introduction to Excel and its uses for the student with little computer experience. Emphasis on spreadsheets, charts and tables. Designed for the disabled student.

ALTW 212 JOB SEARCH SKILLS: THE RESUME FOR THE DISABLED STUDENT 1 Unit
Non-degree applicable credit course.
Prerequisite: Medically verified disability.
May be taken 2 times for credit.
2 hours lecture-laboratory.
Focuses on resume writing techniques and filling out practice job applications.

ALTW 213 WORK ATTITUDES & BEHAVIOR FOR THE DISABLED STUDENT 1 Unit
Non-degree applicable credit course.
Prerequisite: Medically verified disability.
May be taken 2 times for credit.
2 hours lecture-laboratory.
Designed to help the students develop appropriate work behavior and attitudes. Focuses on attitudes, fears, and expectations as they relate to work.

ALTW 214 JOB SEARCH SKILLS: THE INTERVIEW FOR THE DISABLED STUDENT 1 Unit
Non-degree applicable credit course.
Prerequisite: Medically verified disability.
May be taken 2 times for credit.
2 hours lecture-laboratory.
Focuses on interviewing techniques and the special problems faced by the disabled in seeking employment. The informational interview procedure will be explored through lectures and role-play.

ALTW 215 TRANSITION TO WORK FOR THE DISABLED STUDENT 1 Unit
Non-degree applicable credit course.
Prerequisite: Medically verified disability.
May be taken 2 times for credit.
2 hours lecture-laboratory.
Prepare and evaluate personal, educational and vocational information for transition to work.

ALTW 216 DISABILITY & THE LAW FOR THE DISABLED STUDENT 1 Unit
Non-degree applicable credit course.
Prerequisite: Medically verified disability.
2 hours lecture-laboratory.
Understanding basic citizens' rights and responsibilities. Emphasis on the Americans with Disabilities Act (ADA).

ALTW 217 INTERMEDIATE COMPUTER APPLICATIONS FOR THE DISABLED STUDENT 3 Units
Non-degree applicable credit course.
Prerequisite: Medically verified disability.
May be taken 2 times for credit.
2 hours lecture, 2 hours lecture-laboratory, 2 hours terminal time.
Intermediate word processing, spreadsheet and file management skills for the disabled student. Emphasis on office applications needed for employment.
All courses on this page are Title 5 degree applicable credit courses unless otherwise noted.

Foothill College 2010–2011 • www.foothill.edu
ALAP 68 FUNCTIONAL TRAINING FOR THE ADAPTIVE ENDURANCE ATHLETE 1 Unit
Prerequisite: Medically verified disability.
Maybe taken 6 times for credit
3 hours laboratory.
Explore the concept of functional training as it applies to the Adaptive Endurance athlete. Learn, utilize and understand effective training strategies to promote improved performance by the student. Emphasis placed on the application of skills and improved fitness. The importance of proper nutrition to improve performance will also be included. [Transferability: CSU]

ALAP 70 ADAPTIVE AQUATICS FOR THE DISABLED .5 Unit
ALAP 70X THE DISABLED 1 Unit
Prerequisite: Medically verified disability.
Any combination of ALAP 70 & 70X may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit.
2 hours laboratory for each .5 unit of credit.
Individualized swimming instruction to improve cardiovascular endurance. [Foothill GE: Lifelong; Transferability: CSU]

ALAP 71 AQUACIZE FOR THE DISABLED .5 Unit
ALAP 71X THE DISABLED 1 Unit
Prerequisite: Medically verified disability.
Any combination of ALAP 71 & 71X may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit.
2 hours laboratory for each .5 unit of credit.
Individually prescribed aquatic exercises to increase muscular strength and endurance, flexibility, cardiovascular endurance, gross motor coordination, relaxation, as appropriate. [Foothill GE: Lifelong; Transferability: CSU]

ALAP 80 TEAM SPORTS FOR THE DISABLED .5 Unit
ALAP 80X THE DISABLED 1 Unit
Prerequisite: Medically verified disability.
Any combination of ALAP 80 & 80X may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit.
2 hours laboratory for each .5 unit of credit.
A variety of team sports, adapted for the physically limited adult. Team activity and rules of play for team sports, including, but not limited to, soccer, basketball, track and field, softball. [Foothill GE: Lifelong; Transferability: CSU]

ANTHROPOLOGY
Business & Social Sciences (650) 949-7322 www.foothill.edu/bss/

ANTH 1 INTRODUCTION TO PHYSICAL ANTHROPOLOGY 4 Units
4 hours lecture.
Survey of the basic processes of evolution and investigation and their application to the development of modern humans. Impact of natural selection and genetics on development of new species. Evolutionary processes behind the physical and behavioral development of primates. History of the human lineage by reconstructing the fossil record, using investigations by paleoanthropologists, geologists, biologists, and archaeologists. Relationship between contemporary biology and behavior, facilitating an understanding of the affect of them upon future humankind. [Foothill GE: Social & Behavioral Sciences; Transferability: UC/CSU]

ANTH 1L PHYSICAL ANTHROPOLOGY LABORATORY 1 Unit
Corequisite: Completion of, or concurrent enrollment in ANTH 1.
1 hour lecture-laboratory, 2 hours laboratory.
Introductory laboratory course focusing on scientific methodology to explore/experiment with topics from Anthropology lecture sections. Topics include Mendelian genetics, population genetics, human variability, forensics, medical anthropology, epidemiology, hominid dietary patterns, non-human primates, primate dental and skeletal anatomy, fossil hominids, chronometric dating, environmental challenges to hominids, environmental impact of hominid behavior, general methodologies utilized in physical anthropological research, and the general study of hominids as bio-culturally adapting animals. [Transferability: UC/CSU]

ANTH 2A CULTURAL ANTHROPOLOGY 4 Units
4 hours lecture.
Introduction to the study of human culture and the concepts, theories, and methods used in the comparative study of sociocultural systems. Subjects include subsistence, political organization, language, kinship, religion, social inequality, ethnicity, gender, and culture change. Discussion of anthropological perspectives to contemporary issues. [Foothill GE: Social & Behavioral Sciences; Transferability: UC/CSU]

ANTH 2B PATTERNS OF CULTURE 4 Units
4 hours lecture.
Comparative study of patterns in culture. Introduction to ethnographic research and applications of different methods and theories for studying and interpreting societies. [Foothill GE: Social & Behavioral Sciences; Transferability: UC/CSU]

ANTH 3 PREHISTORY: THE SEARCH FOR LOST CIVILIZATIONS 4 Units
4 hours lecture.
Survey of world prehistory as reconstructed by archaeologists. Human culture history from Stone Age beginnings to establishment and collapse of the world’s first major civilizations. Covers societies from Asia and Africa to Europe and the Americas. Introduction to archaeological methods and interpretation. First use of tools, social complexity, urbanization, domestication of plants and animals, and the rise and fall of civilizations. [Foothill GE: Social & Behavioral Sciences; Transferability: UC/CSU]

ANTH 4 FIRSTPEOPLESOFTHEAMERICAS 4 Units
4 hours lecture.
Survey of Indian societies and cultures, north of Mexico, from a cultural perspective. Includes social organization, economics, technology and belief systems. Historic and current relationship between the federal government and the Native Americans. Contemporary issues of Native American communities. [Foothill GE: United States Cultures & Communities, Social & Behavioral Sciences; Transferability: UC/CSU]
ANTH 5  MAGIC, SCIENCE & RELIGION  4 Units
4 hours lecture.
Explores the ways in which people have attempted to gain mastery over the natural and supernatural worlds beginning with prehistoric times and concluding with modern day society and the contemporary world. Cross-cultural study of the beliefs about the nature of reality, spirituality, death, magic, science and healing. [Foothill GE: Social & Behavioral Sciences; Transferability: UC/CSU]

ANTH 6  PEOPLES OF AFRICA  4 Units
4 hours lecture.
Historical and contemporary cultural diversity of Africa emphasizing its social, political and economic organizational structures. Focus on the three religious influences by which African peoples and their resources have been exploited. Problems of acculturation and urbanization as they relate to modernization and expansion of international trade and development. [Foothill GE: Social & Behavioral Sciences; Transferability: UC/CSU]

ANTH 8  INTRODUCTION TO ARCHAEOLOGY  4 Units
4 hours lecture.
Introduction to the historical development, theory and techniques of archaeological research and fieldwork. Development of comparative approach to the study of ancient cultures. Focus on cultural resource management, survey and selection of field sites, dating, excavation, artifact classification, interpretation of data and written analysis. [Foothill GE: Social & Behavioral Sciences; Transferability: UC/CSU]

ANTH 8L  ARCHAEOLOGY LABORATORY  1 Unit
ANTH 8LX  2 Units
ANTH 8LY  3 Units
Prerequisite: ANTH 1 or 8.
Any combination of ANTH 8L, LX & LY may be taken 6 times for credit, however no single course may be taken more than 3 times. Laboratory methods and techniques of archaeology, including cataloging, care and analysis of artifacts, bone recognition, and archaeological excavation. [Transferability: UC/CSU (UC limit is 3 units total)]

ANTH 11  ARCHAEOLOGICAL FIELD METHODS  4 Units
Advisory: Completion of, or concurrent enrollment in ANTH 8 recommended.
May be taken 3 times for credit.
1 hour lecture, 9 hours laboratory.
Introduction to archaeological field methods. Locating different types of archaeological sites with field survey. Methods of field excavation. Study of local artifact types and lab techniques for artifact cleaning and identification. Selection of archaeological site, mapping, excavation, and preparation of artifacts, written analysis. [Transferability: CSU]

ANTH 11B  ARCHAEOLOGY SURVEY  2 Units
Advisory: Completion of, or concurrent enrollment in ANTH 8 recommended.
May be taken 3 times for credit.
6 hours laboratory.
Introduction to field survey in archaeology. Emphasis on site identification, survey techniques and recording skills. All work is conducted at field sites. [Transferability: CSU]

ANTH 12  APPLIED ANTHROPOLOGY  4 Units
4 hours lecture.
Applied anthropology focuses on the use of anthropological theories and perspectives in real-world contexts of practice or problem-solving. Course provides students with tools designed to help understand and solve problems arising as a result of culture change, modernization and globalization. Major areas of study include development anthropology and the use of technology in field settings, anthropology and health care, anthropology and advocacy, such as in social work settings, anthropology and law, organizational and business anthropology, and land and resource management. [Foothill GE: Social & Behavioral Sciences; Transferability: CSU]

ANTH 34H  HONORS INSTITUTE SEMINAR  1 Unit
IN ANTHROPOLOGY
Formerly: ANTH 34
Prerequisite: Honors Institute participant.
1 hour lecture.
A seminar in directed readings, discussions and projects in anthropology. Specific topics to be determined by the instructor. [Transferability: CSU; UC credit may be granted after transfer and upon portfolio review.]

ANTH 35  DEPARTMENT HONORS PROJECTS  1 Unit
IN ANTHROPOLOGY
May be taken 6 times for credit.
1 hour lecture.
Seminar in readings, research, critical techniques and practice. Specific topics vary. [Transferability: CSU; UC credit may be granted after transfer and upon portfolio review.]

ANTH 36  SPECIAL PROJECTS  1 Unit
ANTH 36X  IN ANTHROPOLOGY  2 Units
ANTH 36Y  3 Units
ANTH 36Z  4 Units
Any combination of ANTH 36–36Z may be taken for a maximum of 6 units. 1 hour lecture for each unit of credit.
Advanced readings, research and/or projects in anthropology. Specific topics determined in consultation with instructor. [Transferability: UC/CSU]

ANTH 50  MEDICAL ANTHROPOLOGY: METHODS & PRACTICE  4 Units
4 hours lecture.
Cultural aspects of life and death, sickness and health. Theories of illness causation from varied world cultures and American sub-cultures. Attention to theories and practices of traditional field methodology. [Transferability: CSU]

APPRENTICESHIP PROGRAMS
Foothill College offers apprenticeship training in the following trades: plumbing, pipefitting, refrigeration, heating and air-conditioning, sheet metal, electrician, residential electrician, sound and communication, ironworking, and elevator construction. Because of the unique relationship between on-the-job and classroom apprenticeship training, admission to apprenticeship classes is limited to apprentices registered with the California Division of Apprenticeship Standards. This limitation is authorized by Section 3074.3 of the State Labor Code. All classes meet at off-campus sites. For information, contact:
Plumbing, Pipefitting, Refrigeration, Heating and Air Conditioning
San Jose (408) 453-6330; Monterey (831) 633-6312
Sheet Metal
San Jose (408) 213-1712; San Francisco (415) 431-1676;
San Leandro (510) 483-9035; San Mateo (650) 652-9672;
Castroville (831) 633-6151
Electrician, Residential & Inside Wireman
San Jose (408) 453-1022; San Francisco (415) 587-2500
Elevator Construction
San Francisco (415) 285-2900
Sound & Communication
San Jose (408) 453-3101; San Francisco (415) 587-2500
Ironworking
Fresno (559) 497-1295

All courses on this page are Title 5 degree applicable credit courses unless otherwise noted.
Foothill College 2010–2011 • www.foothill.edu
### Apprenticeship: Electrician

#### Computers, Technology & Information Systems (650) 949-7236

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
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<tbody>
<tr>
<td>APEL 112</td>
<td>Residential Electrical Air Conditioning &amp; Refrigeration; Telephone Systems</td>
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<tr>
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<td><strong>Formerly:</strong> APRT 112</td>
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<td><strong>Prerequisite:</strong> Admission to the Electrical Apprenticeship Program; current employment in the electrical trades industry.</td>
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<td><strong>Advisory:</strong> Not open to students with credit in APRT 112.</td>
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<tr>
<td></td>
<td><strong>Orientation to job responsibility and safety.</strong></td>
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<td>An introduction to air conditioning and refrigeration systems used in residential applications; telephone systems. Students will study the wiring, circuitry and controls in these systems. Continued study of the National Electrical Code as it relates to current and load calculations. Review of A/C and D/C theory.</td>
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<td></td>
<td><strong>Study of job skills and wiring methods.</strong></td>
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<td><strong>Formerly:</strong> APRT 113</td>
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<td></td>
<td><strong>Prerequisite:</strong> Admission to the Electrical Apprenticeship Program; current employment in the electrical trades industry.</td>
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<td><strong>Advisory:</strong> Not open to students with credit in APRT 113.</td>
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<td></td>
<td><strong>6.25 hours lecture-laboratory.</strong></td>
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<td>A study of residential electrical systems and installation practices. Home automation including home theater. Fundamentals of solar power systems and recommended practices. Life safety systems. Expanded study of the National Electrical Code as it relates to communication circuits, and water applications such as pools and fountains.</td>
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<td>APEL 120</td>
<td>Orientation to the Electrical Trade</td>
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<td><strong>Formerly:</strong> APRT 120</td>
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<td></td>
<td><strong>Prerequisite:</strong> Admission to the Electrical Apprenticeship Program; current employment in the electrical trades industry. MATH 105 or equivalent.</td>
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<td><strong>Advisory:</strong> Not open to students with credit in C E 120 or APRT 120.</td>
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<td><strong>8 hours lecture-laboratory.</strong></td>
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<td></td>
<td>Orientation to the commercial/industrial electrical industry with an introduction to electrical theory, tools, materials, wiring methods, and job skills. Review of mathematics as applied in the electrical construction trades.</td>
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<tr>
<td>APEL 121</td>
<td>Electron Theory; Basic Blueprint Reading; DC Theory; National Electrical Code Introduction</td>
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<td><strong>Formerly:</strong> APRT 121</td>
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<td><strong>Corequisite:</strong> Completion of, or concurrent enrollment in APEL 120 or equivalent.</td>
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<td><strong>Advisory:</strong> Not open to students with credit in C E 121 or APRT 121.</td>
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<td></td>
<td><strong>8 hours lecture-laboratory.</strong></td>
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<td></td>
<td>Introduction to the National Electrical Code (NEC), DC theory, principles of magnetism and electromagnetism, basic blueprint reading. Discussion of job skills and wiring methods.</td>
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<td>APEL 122</td>
<td>Codeology; Test Equipment; Pipe Bending; Blueprints</td>
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<td><strong>Formerly:</strong> APRT 122</td>
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<td><strong>Advisory:</strong> Not open to students with credit in APRT 122 or C E 122.</td>
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<td></td>
<td><strong>Corequisite:</strong> Completion of, or concurrent enrollment in APEL 120.</td>
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<td></td>
<td><strong>8 hours lecture-laboratory.</strong></td>
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<td>Study of the National Electrical Code, DC and AC generators, and basic fundamentals of using blueprints. Instruction on usage of test equipment and pipe bending tools. Orientation to job responsibility and safety. Review of wiring methods on-the-job.</td>
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<tr>
<td>APEL 123</td>
<td>AC Theory; Transformers; Intermediate National Electrical Code</td>
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<td><strong>Formerly:</strong> APRT 123</td>
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<td></td>
<td><strong>Prerequisite:</strong> Admission to the Electrical Apprenticeship Program; current employment in the electrical trades industry.</td>
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<td></td>
<td><strong>8 hours lecture-laboratory.</strong></td>
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<td></td>
<td>Study of AC theory, transformer fundamental design and function. Expanded study of the National Electrical Code.</td>
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<tr>
<td>APEL 124</td>
<td>DC/AC Theory; Review; Electronics; Industrial Blueprints</td>
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<td></td>
<td><strong>Formerly:</strong> APRT 124</td>
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<td></td>
<td><strong>Prerequisite:</strong> Admission to the Electrical Apprenticeship Program; current employment in the electrical trades industry.</td>
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<td><strong>Advisory:</strong> Not open to students with credit in C E 124 or APRT 124.</td>
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<td></td>
<td><strong>8 hours lecture-laboratory.</strong></td>
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<td></td>
<td>Review of DC/AC theory. Study of electronics principles and applications, and industrial blueprint reading.</td>
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<tr>
<td>APEL 125</td>
<td>NEC Grounding; Overcurrent Protection; Transformer Connections</td>
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<td></td>
<td><strong>Formerly:</strong> APRT 125</td>
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<td></td>
<td><strong>Prerequisite:</strong> Admission to the Electrical Apprenticeship Program; current employment in the electrical trades industry.</td>
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<td><strong>Advisory:</strong> Not open to students with credit in APRT 125 or C E 125.</td>
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<td></td>
<td><strong>8 hours lecture-laboratory.</strong></td>
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<td></td>
<td>Lessons in grounding and bonding, overcurrent protection and load calculations. Identification of different transformer connections.</td>
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<tr>
<td>APEL 126</td>
<td>Motors; Motor Control; Lighting Protection</td>
<td>4</td>
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<td><strong>Formerly:</strong> APRT 126</td>
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<td></td>
<td><strong>Prerequisite:</strong> Admission to the Electrical Apprenticeship Program; current employment in the electrical trades industry.</td>
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<td><strong>Advisory:</strong> Not open to students with credit in APRT 126 or C E 126.</td>
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<td><strong>8 hours lecture-laboratory.</strong></td>
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<td></td>
<td>A study of different motor types and controls with emphasis on protecting the motors and the buildings they are in with lightning protection systems. Reading and interpretation of schematic drawings. Not open to students with credit in C E 126.</td>
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<tr>
<td>APEL 127</td>
<td>Digital Electronics; Motor Speed Control; Advanced National Electrical Code</td>
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<td></td>
<td><strong>Formerly:</strong> APRT 127</td>
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<tr>
<td></td>
<td><strong>Prerequisite:</strong> APRT 120 or equivalent.</td>
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<td><strong>Advisory:</strong> Not open to students with credit in APRT 127 or C E 127.</td>
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<td><strong>8 hours lecture-laboratory.</strong></td>
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<td></td>
<td>The use of Boolean algebra in the development of logic circuits and logic control. Introduction to the principles of motor speed control. Review of AC theory. Expanded coverage of the National Electrical Code. Not open to students with credit in C E 127.</td>
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<tr>
<td>APEL 127A</td>
<td>Digital Electronics; Motor Speed Control</td>
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<td><strong>Prerequisite:</strong> APEL 120 or equivalent.</td>
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<td><strong>4 hours lecture-laboratory.</strong></td>
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<td></td>
<td>Introduction to the principles of motor speed control and electric motor drives that are pertinent to apprentice electricians. Review of AC and DC theory.</td>
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</tbody>
</table>

All courses on this page are Title 5 degree applicable credit courses unless otherwise noted.

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APEL 128  PROGRAMMABLE LOGIC CONTROLLERS; LOW VOLTAGE SYSTEMS & HIGH VOLTAGE SYSTEMS  4 Units
Formerly: APRT 128
Prerequisite: Admission to the Electrical Apprenticeship Program; current employment in the electrical trades industry.
Advisory: Not open to students with credit in APRT 128 or CE 128.
8 hours lecture-laboratory.
Introduction to programmable controllers, alarm systems, telephone wiring, instrumentation, and high voltage testing.

APEL 129  NATIONAL ELECTRICAL CODE REVIEW  4 Units
Formerly: APRT 129
Prerequisite: Admission to the Electrical Apprenticeship Program; current employment in the electrical trades industry.
Advisory: Not open to students with credit in APRT 129 or CE 129.
8 hours lecture-laboratory.

APEL 129A  ELECTRICAL SYSTEMS  2 Units
Prerequisite: Admission to the San Francisco Electrical Apprenticeship Program; continued employment in the San Francisco Inside Wireman Electrical Trade.
4 hours lecture-laboratory.
This class will cover the 2005 National Electrical Code & Electrical Systems based on the 2005 NEC.

APEL 129B  BASIC ESTIMATING/TAKE-OFF & ELECTRICAL SAFETY-RELATED WORK PRACTICES  2 Units
Prerequisite: Admission to the San Francisco Electrical Apprenticeship Program; continued employment in the San Francisco Inside Wireman Electrical Trade.
3.75 hours lecture-laboratory.
This class will cover basic estimating, material take off, labor review and specification review and will explore the electrical safety-related work practice requirements of NFPA 70E and see how these requirements can be a solution to comply with OSHA's performance requirements, a number of the calculations required to comply with NFPA 70E, many of the significant OSHA requirements related to electrical work, design and work practice issues that make for a safer work environment as well as look at several techniques that can be applied to existing installations that can significantly reduce or eliminate electrical hazards.

APEL 130  OSHA SAFETY & HEALTH  2 Units
Prerequisite: Admission to the Electrical Apprenticeship Program; current employment in the electrical trades industry.
4 hours lecture-laboratory.
Covers thirty (30) hours of training, required by the Occupational Health and Safety Act (OSHA) that apply toward the 30-hour Construction Industry course completion card. The course is comprised of 25 sections, each either one or 2 hours in length, and covers topics pertaining to regulations covered by Standard 29 CFR 1926. The successful completion of this course will help meet the Construction Industry standards established by OSHA.

APEL 135  RESIDENTIAL ELECTRICAL ORIENTATION; SAFETY, & CODE INTRODUCTION  3 Units
Formerly: APRT 135
Prerequisite: Admission to the Electrical Apprenticeship Program; current employment in the electrical trades industry.
Advisory: Not open to students with credit in APRT 135.
6.25 hours lecture-laboratory.
Orientation to the electrical industry with a residential emphasis; on-the-job safety; identification of tools and materials; review of basic math. Introduction to the National Electrical Code.

APEL 136  RESIDENTIAL ELECTRICAL D/C THEORY; BLUEPRINT READING  3 Units
Formerly: APRT 136
Prerequisite: Admission to the Electrical Apprenticeship Program; current employment in the electrical trades industry.
Advisory: Not open to student with credit in APRT 136.
6.25 hours lecture-laboratory.
Introduction to D/C electrical theory and circuitry as it relates to residential installations; conductors used in electrical wiring. Course also introduces blueprint reading including architectural and engineering symbols and scale.

APEL 137  RESIDENTIAL ELECTRICAL A/C THEORY & CIRCUITRY  3 Units
Formerly: APRT 137
Prerequisite: Admission to the Electrical Apprenticeship Program; current employment in the electrical trades industry.
Advisory: Not open to students with credit in APRT 137.
6.25 hours lecture-laboratory.
Introduction to A/C electrical theory and circuitry as they relate to residential installations; job costing and industrial standards. Further study of the National Electrical Code focusing on codeology. Expanded development of blueprint reading skills.

APEL 138  RESIDENTIAL WIRING LAYOUT & INSTALLATION  3 Units
Formerly: APRT 138
Prerequisite: Admission to the Electrical Apprenticeship Program; current employment in the electrical trades industry.
Advisory: Not open to students with credit in APRT 138.
6.25 hours lecture-laboratory.
A study of electrical wiring methods, circuitry, and conduit installation in residential applications. Students will also practice wiring layout for residential housing. Continued study of the National Electrical Code as it relates to circuits, grounding and cable assemblies.

APPRENTICESHIP: IRON WORKERS

APIW 100  INTRODUCTION TO IRONWORKING  3 Units
Formerly: APPR 170
Prerequisite: Admission to Ironworkers Apprenticeship Program; current employment in the ironworking industry.
5.3 hours lecture-laboratory.
Overview of Ironworker's skill and knowledge areas needed to make the newly indentured apprentice a safe and productive worker from the earliest period of job dispatch. Includes a review of basic math principles. OSHA safety.

APIW 109  POST-TENSIONING I  2 Units
Formerly: APPR 179
Prerequisite: Admission to Ironworkers Apprenticeship Program; current employment in the ironworking industry.
Three and one third lecture-laboratory.

APIW 110  ARCHITECTURAL I  2 Units
Formerly: APPR 182A
Prerequisite: Admission to Ironworkers Apprenticeship Program; current employment in the ironworking industry.
Three and one third lecture-laboratory.
A study of the procedures and practices employed by the ironworker in architectural and ornamental ironworking with emphasis on the principles, theory and application of ornamental hand tools, power-actuated tools, anchors, and fasteners. Application of window walls, curtain walls, sealants, glazing, and window and curtain wall systems.
APIW 111 ARCHITECTURAL II 2 Units
Formerly: APPR 182B
Prerequisite: Admission to Ironworkers Apprenticeship Program; current employment in the ironworking industry.
3.3 hours lecture-laboratory.
A continued study of the procedures and practices employed by the ironworker in architectural and ornamental ironworking with emphasis on those elements of construction that do not make a load-bearing contribution to the skeletal structure; such as stairs, fire escapes, ladders, conveyor systems, doors, elevators, windows, railings and other metal features of modern construction. Study of the erection of flagpoles, playground equipment, rail and chain link fences. Care and use of the tools and accessories used in all installations.

APIW 114 WELDING III 2 Units
Prerequisite: Admission to Ironworkers Apprenticeship Program; current employment in the ironworking industry.
3.3 hours lecture-laboratory.
Advanced welding. A further study of welding safety and welding concepts for construction job sites. Welding processes, shielded metal-arc, flux-core arc welding, gas shielded-arc, and TiG welding, symbols, and certification qualifications are included.

APPT 121 INTRODUCTION TO RESIDENTIAL 2.5 Units
PLUMBING, SAFETY & TOOLS
Formerly: APRT 190
Prerequisite: Admission to the Plumbing/Steamfitting Apprenticeship Program; current employment in the pipe trades industry.
4.5 hours lecture-laboratory.
An introduction to basic residential plumbing standards, employment information and procedures, history and heritage of plumbing, organization and construction safety. Necessary trade skills include cutting and threading, use and care of tools, and soldering and brazing are taught along with construction terminology and plumbing definitions.

APPT 122 RESIDENTIAL DRAINAGE SYSTEMS 2.5 Units
Formerly: APRT 182
Prerequisite: Admission to the Residential Plumbing Apprenticeship Program; current employment in the pipe trades industry.
4.5 hours lecture-laboratory.
Overview of the installation and design criteria of residential drainage, waste and vent systems, with emphasis and study of the applied theory, design and installation criteria. Includes application of local codes.

APPT 123 RESIDENTIAL GAS & WATER INSTALLATIONS 2.5 Units
Formerly: APRT 181
Prerequisite: Admission to the Residential Plumbing Apprenticeship Program; current employment in the pipe trades industry.
4.5 hours lecture-laboratory.
Overview of the installation and design criteria of residential hot and cold water, and fuel gas installations. Includes piping materials and hanger systems, material handling and environmental concerns.

APPT 124 MATHEMATICS FOR RESIDENTIAL PLUMBING 2.5 Units
Formerly: APRT 195
Prerequisite: Admission to the Residential Plumbing Apprenticeship Program; current employment in the pipe trades industry.
4.5 hours lecture-laboratory.
A review of basic math concepts and operation, followed by instruction in pipe measurements, formulas, and off-set calculations. Use of common electronic calculators will be included.

APPT 125 RESIDENTIAL BLUEPRINT READING 4.5 Units
Formerly: APRT 196
Prerequisite: Admission to the Residential Plumbing Apprenticeship Program; current employment in the pipe trades industry.
9 hours lecture-laboratory.
This course will familiarize the student with the various blueprints, drawings and sketches used in residential construction. Plan types, details and symbols will be covered, as well as common construction terms and methods. Working from a set of building plans, students will create isometric drawings of plumbing systems.

APPT 126 RESIDENTIAL PIPING LAY-OUT & INSTALLATION; RESIDENTIAL FIXTURES 4.5 Units
Formerly: APRT 197
Prerequisite: Admission to the Residential Plumbing Apprenticeship Program; current employment in the pipe trades industry.
9 hours lecture-laboratory.
This course will introduce the student to the various methods of installing and servicing residential construction. Students will practice the layout and installation of residential copper pipe and tube systems. Hands-on practice of plumbing fixture installation, service and repair will be provided.

APPT 127 RESIDENTIAL PLUMBING CODE 2.5 Units
Formerly: APRT 192
Prerequisite: Admission to the Residential Plumbing Apprenticeship Program; current employment in the pipe trades industry.
4.5 hours lecture-laboratory.
A comprehensive overview of the Plumbing Code. Students will examine each chapter of the code book and practice proper application through worksheets, system design, and sizing exercises.

APPT 128 RESIDENTIAL GAS INSTALLATIONS; SERVICE WORK 2.5 Units
Formerly: APRT 183
Prerequisite: Admission to the Residential Plumbing Apprenticeship Program; current employment in the pipe trades industry.
4.5 hours lecture-laboratory.
This course instructs the student in safe practices for working in excavations and confined spaces. Instructions and hands-on practice will be provided in underground polyethylene gas installations and residential service work.

APPT 131 BASIC PLUMBING SKILLS 4.5 Units
Formerly: APRT 110
Prerequisite: Admission to the Plumbing Apprenticeship Program; current employment in the pipe trades industry.
9 hours lecture-laboratory.
This course starts with orientation to the apprenticeship program, JATC policies and procedures, and familiarizes the apprentice with the Training Center facility and staff. UA history and heritage will also be covered at this time. Safety training is introduced next, with instruction in general construction safety, and hazardous materials awareness. Necessary trade skills including cutting and threading, joining of plastics, knots and rigging, and soldering and brazing are taught.

APPT 132 APPLIED & RELATED THEORY 4.5 Units
Formerly: APPR 102
Prerequisite: Admission to the Plumbing Apprenticeship Program; current employment in the pipe trades industry.
9 hours lecture-laboratory.
An overview of the installation and design criteria of basic plumbing installations. Covers plumbing terminology, definitions and application of local codes. Learn the theory and design criteria applied to waste and vent systems.
APPT 133  BEGINNING DRAWING & DESIGN  4.5 Units
Formerly: APPR 112
Prerequisite: Admission to the Plumbing Apprenticeship Program; current employment in the pipe trades industry.
4.5 hours lecture-laboratory.
Instruction in the use of a transit, builder’s level, pipe laser and other measuring instruments in the layout and installation of piping systems. Establish the invert elevations and coordination of piping systems by means of profile drawings to ensure utility systems are installed as designed.

APPT 134A  RIGGING; LAY-OUT  2.5 Units
Formerly: APPR 113
Prerequisite: Admission to the Plumbing Apprenticeship Program; current employment in the pipe trades industry.
4.5 hours lecture-laboratory.
This course starts with drawing fundamentals before moving to instruction in isometric drawing. Students learn the proper design and sizing of simple waste, water and gas systems. An in-depth study of water supply systems will also be included. Students will also learn to read and interpret simple residential building plans, designing and coordinating plumbing systems within the structure.

APPT 134B  INDUSTRIAL SAFETY  2.5 Units
Prerequisite: Admission to the Plumbing Apprenticeship Program; current employment in the pipe trades industry.
4.5 hours lecture-laboratory.
Study of the requirements for emergency response to and handling of hazardous materials incidents. Covers laws of chemical hazards, electrical hazards, personal protective equipment, confined space rescue, monitoring equipment, and Federal and Cal-OSHA Standards for the construction industry.

APPT 135A  PLUMBING FIXTURES  2.5 Units
Formerly: APPR 116
Prerequisite: Admission to the Plumbing Apprenticeship Program; current employment in the pipe trades industry.
4.5 hours lecture-laboratory.
Instruction in plumbing fixtures and appliances. Experience with various types of structures and wide variety of materials used in fixture manufacture. Guidelines for safe handling of fixtures to prevent injury and/or damage. Proper installation of fixtures and appliances.

APPT 135B  PLUMBING CODES  2.5 Units
Formerly: APPR 119
Prerequisite: Admission to the Plumbing Apprenticeship Program; current employment in the pipe trades industry.
4.5 hours lecture-laboratory.
Apprentices will learn and demonstrate the procedures for coordinating the testing and inspection of plumbing systems and applicable codes that a plumbing systems test must meet. Knowledge of general regulations, including accessibility and ADA requirements will also be discussed.

APPT 136  ADVANCED TRADE MATH FOR PLUMBERS  4.5 Units
Formerly: APPR 118
Prerequisite: Admission to the Plumbing Apprenticeship Program; current employment in the pipe trades industry.
9 hours lecture-laboratory.
Instruction in taking pipe and pipe fitting measurements and in the practical application of measuring devices. Relate math skills to piping installations through the use of formulas and tables. Compute pipe measurements for making offsets and change of direction in piping installations. Review of basic math and the metric system. Use of instruments in piping systems layout.

APPT 137B  APPLIED WELDING  2.5 Units
Formerly: APPR 117
Prerequisite: Admission to the Plumbing Apprenticeship Program; current employment in the pipe trades industry.
4.5 hours lecture-laboratory.
This module introduces the fundamentals of using oxygen and fuel gases to cut, heat, and bend as well as the identification, function, and set up of oxy-fuel equipment. The essentials of pipe and joining pipe through the use of threaded and flanged connections will be discussed, along with the importance of welding safety. Techniques will be discussed for laying out pipe, manipulating the torch, and beveling plate and pipe ends to prepare for welding butt joints. Apprentices will be introduced to the plasma arc cutting torch as a means of cutting stainless steel and aluminum, the theoretical principles of shielded metal arc welding (SMAW), and the fundamentals of welding with stainless steel electrodes.

APPT 138  APPLIED WELDING  2.5 Units
Formerly: APPR 116
Prerequisite: Admission to the Plumbing Apprenticeship Program; current employment in the pipe trades industry.
8.25 hours lecture-laboratory.
The first half of year two, of the Plumber & Pipefitter Apprenticeship program. Provide students with a working knowledge of Plumbing Code Information, procedures, regulations and requirements for safely working with hazardous materials associated with these installations. Risks of working with common process gases found in HPW installations are identified as well as procedures for safely working with and monitoring of these gases. Apprentices will learn about the use of HPW in the manufacture of semiconductor devices. Water treatment and clean steam parameters for the pharmaceutical and biotech manufacturing industries will also be presented.

APPT 139  INDUSTRIAL INSTALLATIONS  2.5 Units
Prerequisite: Admission to the Plumbing Apprenticeship Program; current employment in the pipe trades industry.
4.5 hours lecture-laboratory.
This module focuses on high purity water piping systems (HPW) and cover topics such as basic principles and requirements of HPW production and information, procedures, regulations and requirements for safely working with hazardous materials associated with these installations. Risks of working with common process gases found in HPW installations are identified as well as procedures for safely working with and monitoring of these gases. Apprentices will learn about the use of HPW in the manufacture of semiconductor devices. Water treatment and clean steam parameters for the pharmaceutical and biotech manufacturing industries will also be presented.

APPT 161  SAFETY/TOOLS/HERITAGE/SERVICE  4 Units
Prerequisite: Indenture in the Plumbing Apprenticeship Program, approved by the California State Division of Apprenticeship Standards.
8.25 hours lecture-laboratory.
The first half of year one of the Plumber & Pipefitter Apprenticeship program. Provides students with a working knowledge of plumbing industry materials and standards. Learn Use and Care of Pipetrade Tools, practice Safety, and Heritage of the United Association.

APPT 162  MATHEMATICS/SCIENCE FOR THE PLUMBING TRADE  4.5 Units
Prerequisite: Indenture in the Plumbing Apprenticeship Program, approved by the California State Division of Apprenticeship Standards.
8.5 hours lecture-laboratory.
The second half of year one, of the Plumber & Pipefitter Apprenticeship program. Provide students with a working knowledge of mathematics and science as it applies to the plumbing industry.

APPT 163  CODE/WATER SUPPLY SYSTEMS  4 Units
Prerequisite: Indenture in the Plumbing Apprenticeship Program, approved by the California State Division of Apprenticeship Standards.
8.25 hours lecture-laboratory.
The first half of year two, of the Plumber & Pipefitter Apprenticeship program. Provide students with a working knowledge of Plumbing Code I and water supply systems.
APPT 164  DRAWING I FOR THE PLUMBING TRADE  4.5 Units
Prerequisite: Indenture in the Plumbing Apprenticeship Program, approved by the California State Division of Apprenticeship Standards. 8.5 hours lecture-laboratory.
The first half of year three, of the Plumber & Pipefitter Apprenticeship program. Provide students with a working knowledge of plumbing and piping layouts, drainage systems, piping and fixture supports as it applies to mechanical drawings.

APPT 165  DRAWING II FOR THE PLUMBING TRADE  4 Units
Prerequisite: Indenture in the Plumbing Apprenticeship Program, approved by the California State Division of Apprenticeship Standards. 8.25 hours lecture-laboratory.
The second half of year two, of the Plumber & Pipefitter Apprenticeship program. Provide students with a working knowledge of Technical Drawings, Isometric Drawings and the creation of Building Plans as it applies to the Plumbing trade.

APPT 166  WELDING/OXY-ACETYLENE TRAINING  4.5 Units
Prerequisite: Indenture in the Plumbing Apprenticeship Program, approved by the California State Division of Apprenticeship Standards. 8.25 hours lecture-laboratory.
The second half of year three, of the Plumber & Pipefitter Apprenticeship program. Provide students with a working knowledge of welding principles, as it relates to Metal ARC welding, Gas ARC welding, TIG Welding, MIG Welding and Oxygen/Acetylene burning and welding.

APPT 167  STEAM SYSTEMS/RIGGING/PIPE FITTING & SERVICE  4 Units
Prerequisite: Indenture in the Plumbing Apprenticeship Program, approved by the California State Division of Apprenticeship Standards. 8.25 hours lecture-laboratory.
The first half of year four, of the Plumber & Pipefitter Apprenticeship program provides students with a working knowledge of Layout, Cut, and Fit for Water Piping and Steamfitting systems.

APPT 168  MEDICAL GAS/HYDRONICS  4.5 Units
Prerequisite: Indenture in the Plumbing Apprenticeship Program; approved by the California State Division of Apprenticeship Standards. 8.5 hours lecture-laboratory.
The second half of year four of the Plumber & Pipefitter Apprenticeship program. Provide students with a working knowledge of Medical Gas, Brazer, and Hydronic Systems.

APPT 169  ADVANCED DRAWING/LAYOUT FOR THE PLUMBING TRADES  4 Units
Prerequisite: Indenture in the Plumbing Apprenticeship Program, approved by the California State Division of Apprenticeship Standards. 8.25 hours lecture-laboratory.
The first half of year five of the Plumber & Pipefitter Apprenticeship program. Provide students with a working knowledge of Advanced Drawing, Plumbing Layout and Building Detailing. Specifications for Code Callouts are also covered in depth.

APPT 170  CODE II/JUNIOR MECHANICS  4.5 Units
Prerequisite: Indenture in the Plumbing Apprenticeship Program, approved by the California State Division of Apprenticeship Standards. 8.5 hours lecture-laboratory.
The first half of year five of the Plumber & Pipefitter Apprenticeship program. Provide students with a working knowledge of Plumbing Codes and will review how changes affect the codes.

APPT 171  BASIC REFRIGERATION/HERITAGE/CFC  4 Units
Prerequisite: Indenture in the Refrigeration & Air Conditioning Apprenticeship Program; approved by the California State Division of Apprenticeship Standards. 8.25 hours lecture-laboratory.
The first half of year one of the Refrigeration & Air Conditioning Apprenticeship program. Provide students with a working knowledge of Thermodynamics, Chloro-Fluoro Carbons (CFC), and basic Refrigeration, as it pertains to the Air Conditioning Service industry.

APPT 172  REFRIGERATION SCIENCE  4.5 Units
Prerequisite: Indenture in the Refrigeration & Air Conditioning Apprenticeship Program, approved by the California State Division of Apprenticeship Standards. 8.5 hours lecture-laboratory.
The second half of year one of the Refrigeration & Air Conditioning Apprenticeship program. Provide students with a working knowledge of Basic Refrigeration, Refrigeration Equipment, and Equipment Maintenance.

APPT 173  BASIC ELECTRICITY FOR THE HVAC SERVICE TRADE  4 Units
Prerequisite: Indenture in the Refrigeration & Air Conditioning Apprenticeship Program, approved by the California State Division of Apprenticeship Standards. 8.25 hours lecture-laboratory.
The first half of year two of the Refrigeration & Air Conditioning Apprenticeship program. Provide students with a working knowledge of basic electricity, including AC/DC theory and Ohms law. Students will be expected to apply these theories in the laboratory using electronic and testing instruments.

APPT 174  ADVANCED ELECTRICITY/PNEUMATIC DDC INTRODUCTION  4.5 Units
Prerequisite: Indenture in the Refrigeration & Air Conditioning Apprenticeship Program, approved by the California State Division of Apprenticeship Standards. 8.5 hours lecture-laboratory.
This course covers the second half of year two, of the Refrigeration & Air Conditioning Apprenticeship program. Provide students will obtain a working knowledge of Advanced Electricity, Motors, Starter, Circuitry, and Variable Drives.

APPT 175  CONTROLS I/ELECTRO PNEUMATICS  4 Units
Prerequisite: Indenture in the Refrigeration & Air Conditioning Apprenticeship Program, approved by the California State Division of Apprenticeship Standards. 8.25 hours lecture-laboratory.
The first half of year three of the Refrigeration & Air Conditioning Apprenticeship program. Provide students with a working knowledge of Controls, Control Theory, Timing Circuits, Computerized Control, and Energy Management Systems.

APPT 176  CONTROLS II/ADVANCED PNEUMATICS CALIBRATION/HYDRONICS  4.5 Units
Prerequisite: Indenture in the Refrigeration & Air Conditioning Apprenticeship Program, approved by the California State Division of Apprenticeship Standards. 8.5 hours lecture-laboratory.
The second half of year three of the Refrigeration & Air Conditioning Apprenticeship program. Provide students with a working knowledge of advanced control systems, including the uses of 2-Position, Floating and Modulating Controls. Fiber Optics and Direct Digital Controls are introduced.
**Apprenticeship: Pipe Trades, Sheet Metal, Field Ironworkers**

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<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>APPT 177</td>
<td>START, TEST &amp; BALANCE I</td>
<td>4</td>
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<tr>
<td>APPT 178</td>
<td>START, TEST &amp; BALANCE II</td>
<td>4.5</td>
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<tr>
<td>APPT 179</td>
<td>CHILLERS/SPECIAL SYSTEMS/HVACR</td>
<td>4</td>
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<tr>
<td>APPT 180</td>
<td>HVAC STAR REVIEW &amp; EXIT EXAM</td>
<td>4.5</td>
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<tr>
<td>APPT 181</td>
<td>STEAM FITTING &amp; RIGGING</td>
<td>4</td>
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<tr>
<td>APPR 111</td>
<td>BASIC MATH, SCIENCE &amp; ELECTRICITY</td>
<td>3</td>
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<tr>
<td>APPR 117A</td>
<td>CUTTING &amp; WELDING FOR PLUMBERS</td>
<td>2</td>
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<tr>
<td>APPR 120</td>
<td>AIR CONDITIONING FOR PLUMBERS</td>
<td>2</td>
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<tr>
<td>APPR 123</td>
<td>ORIENTATION: BASIC STEAMFITTING</td>
<td>4.5</td>
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<td>APPR 124</td>
<td>BASIC MATH; BEGINNING DRAWING</td>
<td>4.5</td>
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<tr>
<td>APPR 125</td>
<td>HYDRONIC SYSTEMS</td>
<td>2.5</td>
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<td>APPR 126</td>
<td>SCIENCE; ELECTRICITY &amp; AIR CONDITIONING</td>
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</tbody>
</table>

All courses on this page are Title 5 degree applicable credit courses unless otherwise noted.

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APP 127  STEAM TECHNOLOGY 4.5 Units
Prerequisite: Admission to the Plumbing/Steamfitting Apprenticeship Program; current employment in the pipe trades industry.
9 hours lecture-laboratory.
A study of steam systems. Covers steam systems theory, one-pipe steam systems, low and high-pressure boilers, peripherals, arrowhead symbols and accessories.

APPR 130  REVIEW & TURNOUT 2.5 Units
Prerequisite: Admission to the Plumbing/Steamfitting Apprenticeship Program; current employment in the pipe trades industry.
4.5 hours lecture-laboratory.
Comprehensive overview of the entire plumbing, steamfitting and refrigeration courses of instruction. Preparation for completion examinations. Presentation of the latest current code and safety information. Planning and organizing piping projects.

APPR 131  ORIENTATION; BASIC REFRIGERATION SERVICE SKILLS 4.5 Units
Prerequisite: Admission to the Plumbing/Steamfitting Apprenticeship Program; current employment in the pipe trades industry.
9 hours lecture-laboratory.
Orientation to the refrigeration trade. Introduction of construction safety, refrigerant handling, and hazardous materials awareness. Develop skills in cutting and threading, soldering and brazing, and how to establish and maintain effective applications. Review basic math principles, and trade related applications introduced. Develop customer relations skills.

APPR 132  BASIC ELECTRICITY & REFRIGERATION 4.5 Units
Prerequisite: Admission to the Plumbing/Steamfitting Apprenticeship Program; current employment in the pipe trades industry.
9 hours lecture-laboratory.
Study of the laws and fundamentals of basic electricity and their application to mechanical equipment service. Covers refrigeration theory and application of the vapor compression cycle.

APPR 132C  MECHANICAL SYSTEMS 3 Units
Prerequisite: Admission to the Plumbing/Steamfitting Apprenticeship Program; current employment in the pipe trades industry.
6 hours lecture-laboratory.
Basic and advanced refrigeration concepts, followed by extensive study of the design, assembly and operation of compression systems. Includes liquid and vapor control, metering devices, system components and piping design.

APPR 139A  REMEDIAL CONSTRUCTION TRADE MATH 4.5 Units
Prerequisite: Admission to Construction Trade Apprenticeship Program; current employment in the construction industry.
9 hours lecture-laboratory.
Reinforce and increase math skills necessary to meet the current level of mathematics occurring in construction trades. Course consists of basic arithmetic, geometry, algebra and trigonometry principles as applied in the construction trades.

APPR 150  BASIC THEORY, USE OF TOOLS, JOB SAFETY & HEALTH 4.5 Units
Prerequisite: Admission to Apprenticeship Program; satisfactory completion of qualifying examinations.
9 hours lecture-laboratory.
Designed to provide the apprentice with basic theory and the use of tools, materials, basic code, first aid, basic math, and job safety and health.

APP 151  THEORY & PRACTICE OF GAS WELDING, COPPER, CAST IRON, BRAZING, PLASTIC HOT AIR WELDING, VICTALIC, FLANGE, & FLAME CUTTING 4.5 Units
Prerequisite: Admission to Apprenticeship Program; APPR 150.
9 hours lecture-laboratory.
Designed to provide the apprentice with skills in basic oxy-acetylene and hot air welding, soldering, brazing, and flame cutting. Use of copper and cast iron will be included.

APP 161  AIR CONDITIONING, PNEUMATIC CONTROLS, INSTRUMENTATION & PROCESS CONTROLS 4.5 Units
Prerequisite: Admission to Apprenticeship Program; APPR 160.
9 hours lecture-laboratory.
Designed to provide the apprentice with the knowledge of basic air conditioning principles and practice, including fundamentals, tools, controls, air balancing, total systems, and trouble-shooting.

APP 163  REFRIGERATION ASSEMBLY & REPAIR 4.5 Units
Prerequisite: Admission to Apprenticeship Program.
9 hours lecture-laboratory.
Designed to provide the apprentice with the knowledge to dissemble and reassemble compressors and related refrigeration equipment.

APP 164  TRANSIT; SOLAR; SPECIAL PURPOSE INSTALLATIONS; SERVICE WORK & HUMAN RELATIONSHIP; HYDRONIC HEATING & COOLING 4.5 Units
Prerequisite: Admission to Apprenticeship Program.
9 hours lecture-laboratory.
Designed to provide the apprentice with the knowledge of the operation and maintenance of transit and builders level, solar heating, the basic principles of service work, and hydronic heating and cooling systems.

APP 165  APPRENTICESHIP ENERGY MANAGEMENT 4.5 Units
Prerequisite: Admission to Plumbing/Pipefitting Apprentice Program; completion of 4 years of apprenticeship training.
9 hours lecture-laboratory.
Instruction and practice of computer controlled energy management for heating, cooling, and electrical.

APP 171  MIXED BASE 2 Units
Prerequisite: Admission to Ironworkers Apprenticeship Program; current employment in the ironworking industry.
4 hours lecture-laboratory.
Introduction to blueprint reading and continuation of basic trade mathematics. OSHA safety. Includes scaffold user certification course.

APP 172  REINFORCING IRON I 2 Units
Prerequisite: Admission to Ironworkers Apprenticeship Program; current employment in the ironworking industry.
4 hours lecture-laboratory.
Instruction in reinforced concrete principles, applications, and processes. Study of the forces at work when iron and concrete are combined as a building material.

APP 173  RIGGING I 2 Units
Prerequisite: Admission to Ironworkers Apprenticeship Program; current employment in the ironworking industry.
4 hours lecture-laboratory.
Introduction to rigging operations such as wire rope, chains, slings, cranes, helicopters, ladders and scaffolds used in the ironworkers' trade. Rigging safety, knot recognition and strength identification, and knot application to rigging are included.

All courses on this page are Title 5 degree applicable credit courses unless otherwise noted.
Foothill College 2010–2011 • www.foothill.edu 129
APPR 174  IRONWORKER HISTORY & FOREMAN TRAINING  2 Units
Prerequisite: Admission to Ironworkers Apprenticeship Program; current employment in the ironworking industry.
4 hours lecture-laboratory.
Acquaints the student with the history of the ironworking trade. Study of the state and federal laws giving the apprenticeship program in California its legal authority, the manner in which each law affects the workers, and the privileges and obligations of the workers in the trade. Procedures for dispatch of workers and the effect of wages and benefits on workers' compensation insurance will also be covered.

APPR 175  WELDING I  2 Units
Prerequisite: Admission to Ironworkers Apprenticeship Program; current employment in the ironworking industry.
4 hours lecture-laboratory.
Introduction to welding and welding concepts for construction job sites. Basic welding safety and basic welding terms, definitions, positions, and cutting operations are included.

APPR 176  STRUCTURAL I  2 Units
Prerequisite: Admission to Ironworkers Apprenticeship Program; current employment in the ironworking industry.
4 hours lecture-laboratory.
Introduction to high steel construction. Emphasis will be on erection of beams and skeletons, fastening structural steel, manufacture of iron and steel, safety positions, finishing operations.

APPR 177  WELDING II  2 Units
Prerequisite: Admission to Ironworkers Apprenticeship Program; current employment in the ironworking industry.
4 hours lecture-laboratory.
Intermediate welding. A further study of welding safety and welding concepts for construction job sites. Welding processes, shielded metal-arc, gas shielded-arc, and oxy-acetylene welding, symbols, and certification qualifications are included.

APPR 178  STRUCTURAL II  2 Units
Prerequisite: Admission to Ironworkers Apprenticeship Program; current employment in the ironworking industry.
4 hours lecture-laboratory.
Advanced safety, principles, and applications of scaffolding, mobile cranes and tower cranes. Scaffold Erector/Dismantler certification.

APPR 179  POST-TENSIONING I  2 Units
Prerequisite: Admission to Ironworkers Apprenticeship Program; current employment in the ironworking industry.
4 hours lecture-laboratory.

APPR 182A  ARCHITECTURAL I  2 Units
Prerequisite: Admission to Ironworkers Apprenticeship Program; current employment in the ironworking industry.
4 hours lecture-laboratory.
A study of the procedures and practices employed by the ironworker in architectural and ornamental ironworking with emphasis on the principles, theory, and application of ornamental hand tools, power-actuated tools, anchors, and fasteners. Application of window walls, curtain walls, sealants, glazing, and window and curtain wall systems.

APPR 182B  ARCHITECTURAL II  2 Units
Prerequisite: Admission to Ironworkers Apprenticeship Program; current employment in the ironworking industry.
4 hours lecture-laboratory.
A continued study of the procedures and practices employed by the ironworker in architectural and ornamental ironworking with emphasis on those elements of construction that do not make a load-bearing contribution to the skeletal structure; such as stairs, fire escapes, ladders, conveyor systems, doors, elevators, windows, railings and other metal features of modern construction. Study of the erection of flagpoles, playground equipment, rail and chain link fences. Care and use of the tools and accessories used in all installations.

APPR 183A  BASIC ELECTRICITY FOR SHEET METAL & AIR CONDITIONING SERVICE  4.5 Units
Prerequisite: Admission to Sheet Metal Apprenticeship Program; currently employed in the sheet metal industry.
9 hours lecture-laboratory.
Development of basic skills necessary for sheet metal workers to service air conditioning equipment with special emphasis on the basics of electricity and refrigeration principles.

APPR 183B  ADVANCED ELECTRICITY FOR SHEET METAL & AIR CONDITIONING SERVICE  4.5 Units
Prerequisite: Admission to Sheet Metal Apprenticeship Program; currently employed in the sheet metal industry.
9 hours lecture-laboratory.
Continued development of skills necessary for sheet metal workers to service air conditioning equipment with special emphasis on the use of basic electrical testing instruments, principles, transformers, relays, contactors and safety around electrical equipment.

APPR 184A  AIR CONDITIONING: COMMERCIAL SYSTEMS; HEATING (FOURTH-YEAR SERVICE)  4.5 Units
Prerequisite: Admission to Sheet Metal Apprenticeship Program; currently employed in the sheet metal industry.
9 hours lecture-laboratory.
Development of skills necessary for sheet metal workers to service air conditioning equipment with emphasis on air-cooled commercial systems, refrigerant line components, installation and commercial applications.

APPR 184B  COMMERCIAL SYSTEMS; HEAT LOADS; PIPING (FOURTH-YEAR SERVICE)  4.5 Units
Prerequisite: Admission to Sheet Metal Apprenticeship Program; currently employed in the sheet metal industry.
9 hours lecture-laboratory.
Continued development of skills necessary for sheet metal workers to service air conditioning equipment with emphasis on commercial systems, servicing, heat loads and piping.

APPR 185A  BASIC REFRIGERATION FOR SHEET METAL AIR CONDITIONING SERVICE  4.5 Units
Prerequisite: Admission to Sheet Metal Apprenticeship Program; currently employed in the sheet metal industry.
9 hours lecture-laboratory.
Introduction to the use of refrigeration evacuation service equipment, charging refrigeration systems, and to the use of oxy-acetylene brazing equipment.

APPR 185B  ADVANCED REFRIGERATION FOR SHEET METAL AIR CONDITIONING SERVICE  4.5 Units
Prerequisite: Admission to Sheet Metal Apprenticeship Program; currently employed in the sheet metal industry; APPR 185A.
9 hours lecture-laboratory.
Continued development of refrigeration skills with emphasis on the function of compressors, multiphase electric motors and piping systems.

APPR 186A  PROPERTIES OF AIR DISTRIBUTION FOR SHEET METAL AIR CONDITIONING SERVICE  4.5 Units
Prerequisite: Admission to Sheet Metal Apprenticeship Program; currently employed in the sheet metal industry; APPR 185A.
9 hours lecture-laboratory.
Introduction to the different properties of air distribution with air volumes, pressures, humidity and temperature; basic air balance procedures.
APPRENTICESHIP: SHEET METAL

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APPSM 101 SMQ-1 TRADE INTRODUCTION 1.5 Units
Prerequisite: Admission to Sheet Metal Apprenticeship Program.
3 hours lecture-laboratory.
Introduction to Sheet Metal as a skilled construction trade including:
general overview, trade history and related issues, material handling and
safety, sheet metal materials, hardware, and HVAC careers.

APPSM 102 SMQ-2 CERTIFIED SAFETY & BEGINNING TRADE MATH 1.5 Units
Prerequisite: Admission to Sheet Metal Apprenticeship Program.
3 hours lecture-laboratory.
Demonstration of shop safety during classes and work space.

APPSM 103 SMQ-3 SHEET METAL TOOLS & SHOP 1.5 Units
Prerequisite: Admission to Sheet Metal Apprenticeship Program;
current employment in the sheet metal industry.
3 hours lecture-laboratory.
Introduction to OSHA and safety issues including job site safety,
first aid and CPR certification. Reinforce and increase math skills necessary
to meet the current level of mathematics occurring in construction trades.

APPSM 104 SMQ-4 SOLDERING & COMMON SEAMS 1.5 Units
Prerequisite: Admission to Sheet Metal Apprenticeship Program;
current employment in the sheet metal industry.
3 hours lecture-laboratory.
Introduction to soldering common seams, including lap and vertical
seams, soldering with various materials and flux, alternate seam
fabrication, and fabrication of non-soldered seams.

APPSM 105 SMQ-5 DRAFTING INTRODUCTION & VIEWS 1.5 Units
Prerequisite: Admission to Sheet Metal Apprenticeship Program.
3 hours lecture-laboratory.
Introduction to drafting, including the use of architects scale,
drawing format, geometric construction, basic views, square and radius elbows,
and drawing duct runs.

APPSM 106 SMQ-6 BEGINNING DUCT FITTINGS 1.5 Units
Prerequisite: Admission to Sheet Metal Apprenticeship Program.
3 hours lecture-laboratory.
Introduction to the variety of duct connections, sealing, elbows and transitions
common to the sheet metal industry.

APPSM 107 SMQ-7 PARALLEL LINE FITTINGS 1.5 Units
Prerequisite: APPSM 103, 106, or equivalent.
3 hours lecture-laboratory.
Introduction to drafting, including the use of architects scale,
drawing format, geometric construction, basic views, square and radius elbows,
and drawing duct runs.

APPSM 108 SMQ-8 TRIANGULATION FITTINGS 1.5 Units
Prerequisite: APPSM 103, 106, or equivalent.
3 hours lecture-laboratory.
Introduction to drafting, including the use of architects scale,
drawing format, geometric construction, basic views, square and radius elbows,
and drawing duct runs.

APPSM 109 SMQ-9 RADIAL LINE LAYOUT & Ogee OFFSETS 1.5 Units
Prerequisite: APPSM 103, 106, or equivalent.
3 hours lecture-laboratory.
Radial Line Layout introduces a third of three traditional sheet metal
pattern development methods. Concepts are applied to conical sheet
metal projects. In addition, the ogee offset fitting, sometimes important
in maintaining efficient air flow is developed in flat and compound forms.
APSM 110  SMQ-10 BASICS OF ARCHITECTURAL 1.5 Units
SHEET METAL
Prerequisite: APSM 104, 105, or equivalent.
3 hours lecture-laboratory.
This course focuses on essential skills used in architectural sheet metal work, particularly with gutter and downspout systems. This includes joint design for water flow, caulking and soldering applications, miters, and expansion joints. Architectural Sheet Metal is used to protect building from moisture and mold damage. Roof and scaffold safety is discussed.

APSM 111  SMQ-11 ARCHITECTURAL 1.5 Units
SHEET METAL
Prerequisite: APSM 110 or equivalent.
3 hours lecture-laboratory.
This architectural sheet metal course seeks to develop an understanding of the common applications and general skills used in architectural sheet metal construction. Chimney saddles, flashings and counter flashings, coping, gravel stop, fascia, soffit, and scuppers are all covered in detail. Students fabricate many of these items.

APSM 112  SMQ-12 FIELD INSTALLATION 1.5 Units
Prerequisite: APSM 102 or equivalent.
3 hours lecture-laboratory.
This course addresses some needs specific to field work in the sheet metal industry. Students receive training and safety certifications for powder actuated tools, asbestos awareness, forklift, and scissor lift or articulating booms. Proper techniques for rigging and hoisting loads are presented. Safety harnesses and other field safety equipment are discussed. In addition, fire damper types are presented and the need to follow manufacturer’s specifications for applications related to life safety in buildings is stressed.

APSM 113  SMQ-13 WELDING 1: PROCESS & SAFETY OVERVIEW 1.5 Units
Prerequisite: APSM 101, 102, or equivalent.
3 hours lecture-laboratory.
This course begins with an overview of common welding safety hazards and personal protective equipment for welding. The Gas Metal Arc Welding process is introduced and practiced by students as commonly used in the sheet metal industry. Machine set-up and basic skills are stressed.

APSM 114  SMQ-14 WELDING 2: GMAW 1.5 Units
Prerequisite: APSM 101, 102, or equivalent.
3 hours lecture-laboratory.
This course continues with development of Gas Metal Arc Welding skills. In addition, Welding symbols, portable grinder safety, hot work permits, Oxy-Fuel cutting, Plasma Arc cutting and Flux Core Arc Welding are introduced. Progress in student welding skill development is essential.

APSM 115  SMQ-15 WELDING 3: GMAW 1.5 Units
Prerequisite: APSM 101, 102, or equivalent.
3 hours lecture-laboratory.
This course introduces the Shielded Metal Arc Welding process. Students learn basic skills and proper set up of equipment. Work in vertical and overhead positions is presented as well as flat. Weld safety is stressed. As time allows, Gas Tungsten Arc Welding is also introduced.

APSM 116  SMQ-16 PLANS & SPECIFICATIONS 1.5 Units
Prerequisite: APSM 105 or equivalent.
3 hours lecture-laboratory.
Introduction to plans and specifications and their applications in the sheet metal construction industry. This includes reading and interpreting title blocks, lines, abbreviations, symbols, sections, details and schedules for residential and commercial projects. Architectural, Structural, Mechanical, Electrical, Control, and specialty drawings are covered in detail.

APSM 117  SMQ-17 SUBMITTALS & SHOP DRAWINGS 1.5 Units
Prerequisite: APSM 116, or equivalent.
3 hours lecture-laboratory.
This course continues to build on job specification and blueprint reading instructions and adds the ‘shop drawing’ and use of submittals as done in the sheet metal industry. This includes reading typical drawings and submittals, identifying specific information on the submittal, applying a numbering system to the shop drawing, creating material lists form the shop drawing or submittal, and field use of drawings and submittals.

APSM 118  SMQ-18 INDUSTRIAL & STAINLESS STEEL INTRODUCTION 1.5 Units
Prerequisite: APSM 102, 103, or equivalent.
3 hours lecture-laboratory.
This course introduces heavy gauge industrial sheet metal techniques and stainless steel applications used in the industry. Topics include calculations of bend allowances for heavy gauge metal, layout and forming heavy gauge metal, using a blowpipe, material handling equipment, marking, forming and surface finishing stainless steel products. Safety and material handling practices are reviewed.

APSM 119  SMQ-19 HVAC AIR SYSTEMS & DUCT DESIGN 1.5 Units
Prerequisite: APSM 106, or equivalent.
3 hours lecture-laboratory.
Basics of air conditioning system design, operation, and installation will be covered in detail. Students will learn how cooling systems can be designed with human comfort and efficient operation in mind. Students learn basic components, and to identify loss factors of typical HVAC systems. Load calculations and air flow calculations are performed. Duct leak testing is introduced. The importance of efficiency with today’s environmental concerns is stressed.

APSM 120  SMQ-20 MEASURING & SKETCHING 1.5 Units
Prerequisite: APSM 105, or equivalent.
3 hours lecture-laboratory.
Field measuring and sketching techniques are discussed in detail as it relates to sheet metal work. Topics covered include measuring techniques and safety, reference points, calculations, and industry accepted symbols, views and representations. Students measure and produce sketches.

APSM 121  SMQ-21 FABRICATION & SHORTCUTS 1.5 Units
Prerequisite: APSM 107, 108, 109, or equivalent.
3 hours lecture-laboratory.
Theory and application of sheet metal fabrication and shortcuts used in residential and commercial construction are reviewed in this course. Students will gain a working knowledge of floor and hand tools used in the trade and relevant safety issues. Advanced techniques are applied. Geometry and math associated with fabrication are an integral part of this course.

APSM 122  SMQ-22 CODES & STANDARDS 1.5 Units
Prerequisite: APSM 101, 102, 116, or equivalent.
3 hours lecture-laboratory.
Introduction to the organization and interpretation of building codes and standards in the sheet metal industry. Restrictions and limitations these codes place on the construction industry are covered in detail. Students work with codes common to the industry and SMACNA standards to research information.

APSM 123  SMQ-23 RESIDENTIAL SHEET METAL 1.5 Units
Prerequisite: APSM 101, 106, or equivalent.
3 hours lecture-laboratory.
Introduction to sheet metal work specific to residential construction including: the various types of residential heating, ventilation and air conditioning systems, combustion theory, basic air distribution, furnace construction, filters, humidifiers, installation techniques, and maintenance procedures.
APSM 124  SMQ-24 METAL ROOFING  1.5 Units
Prerequisite: APSM 110, or equivalent.
3 hours lecture-laboratory.
This is an overview of the different types of metal roofs used in the sheet metal industry, including safety and other materials to layout and install. Common roof seams are fabricated. Use of manufactured and shop-fabricated materials for roof layout and installation is practiced, including roof penetrations and related flashings.

APSM 125  SMQ-25 DETAILING  1.5 Units
Prerequisite: APSM 116, 117, or equivalent.
3 hours lecture-laboratory.
Detailing in the sheet metal industry is a specialized skill that requires attention to detail when working with drawings and specifications. In this course, students will compile detail information from plans, specs, submittals, standards, field measurements, and codes.

APSM 126  SMQ-26 FOREMAN TRAINING  1.5 Units
Prerequisite: APSM 112, 117, 119, 120, or equivalent.
3 hours lecture-laboratory.
This course is for journeyman-level sheet metal workers who want to become supervisors, site managers, leads, and foreman. In this course, students will be able to identify the roles of the foreman, responsibilities of a foreman, and reasons to become a foreman. Students will practice self-evaluation, successful foreman attributes, managing and leading others, and project management.

APSM 127  SMQ-27 BASIC AUTOCAD  1.5 Units
Prerequisite: APSM 105, 116, 117, or equivalent.
3 hours lecture-laboratory.
In the Basic AutoCAD class students learn how to follow the proper protocols for computer use and perform essential computer file management operations. The students will navigate through the basic AutoCAD screen and command menus. The students will demonstrate the basic use of AutoCAD by creating and plotting a drawing assignment within parameters and given template. The students will be able to demonstrate how AutoCAD is used in the Sheet Metal Industry.

APSM 130  SMQ-30 ADVANCED WELDING  1.5 Units
Prerequisite: APSM 101 and 102, or equivalent; APSM 114; APSM 115 or equivalent.
3 hours lecture-laboratory.
Advanced techniques used in Oxy-Fuel/ Plasma cutting, GMAW, and GTAW on various types and thicknesses of base material.

APSM 131  SMQ-31 CAD DETAILING (BEGINNING CAD DUCT)  1.5 Units
Prerequisite: APSM 105; APSM 116 &117; APSM 127 or equivalent.
3 hours lecture-laboratory.
Basic computer-aided design (CAD) drafting skills. Use of CAD DUCT tool to set up drawings. 3D duct detailing program with emphasis on electronic coordination. Focuses on file management and drawing protocol. Utilize structural and architectural backgrounds. Design ducting within the CAD drawing. Use CAD DUCT for location and elevation.

APSM 132  SMQ-32 INTERMEDIATE CAD DETAILING  1.5 Units
Prerequisite: APSM 105, 116, 127 and 131 or equivalent.
3 hours lecture-laboratory.
Continuation of 3D duct detailing program for electronic coordination. Emphasis is on accessing, editing and recovering files with the CAD DUCT system. Students will use format standards, tag files and program utilities. Using contract documents, students will work through the steps necessary to create a job file.

APSM 133  SMQ-33 ADVANCED ARCHITECTURAL  1.5 Units
Prerequisite: APSM 110 or equivalent.
3 hours lecture-laboratory.
Develop advanced skills to layout architectural custom flashing and cornices. Work with the newest metal roofing material. Work with copper and other materials to layout and fabricate ornamental projects.

APSM 134  SMQ-34 ADVANCED LAYOUT FABRICATION  1.5 Units
Prerequisite: APSM 107, 108, 109 or equivalent.
3 hours lecture-laboratory.
Advance methods of pattern development using a calculator. Use the Pythagorean Theorem, and other math formulas relating to sheet metal layout, fabrication and shop procedures.

APSM 135  SMQ-35 PROJECT MANAGEMENT, TAKEOFFS & ESTIMATES  1.5 Units
Prerequisite: APSM 112, 117, 119, 120 or equivalent.
3 hours lecture-laboratory.
Development of skills in supervision, management of various types of project, performing take off's directly from contract drawings and creating an detailed estimate of a specific project.

APSM 136  SMQ-36 SERVICE BASICS  1.5 Units
Prerequisite: APSM 112, 117, 119, 120 or equivalent.
3 hours lecture-laboratory.
Development of the basic skills necessary for a sheet metal worker to service a basic HVAC building system.

APSM 137  SMQ-37 FINAL HVAC PROJECT  1.5 Units
Prerequisite: APSM 112, 117, 119, 120, or equivalent.
3 hours lecture-laboratory.
Design, fabricate, and install a typical HVAC system from concept design drawing to the finished installed project.

APSM 138  SMQ-38 FINAL ARCHITECTURAL, INDUSTRIAL, ORNAMENTAL PROJECT  1.5 Units
Prerequisite: APSM 112, 117, 119 or equivalent.
3 hours lecture-laboratory.
Design, fabricate, and install a typical Architectural, Industrial or an Ornamental project from concept design drawing to the finished installed project.

APPS 111  JOB INFORMATION, SAFETY, TEST INSTRUMENTS, STRUCTURED CABLING, FIBER OPTICS & BLUEPRINT READING  3.5 Units
Formerly: APRT 130
Prerequisite: Indentured to the Northern California Sound and Communication Joint Apprenticeship and Training Committee as an Apprentice Installer/Technician.
6.66 hours lecture-laboratory.
Week One: Introduction to the sound and communication industry. Students will learn about basic tools of the trade, test instruments, proper care and safety of tools. Students will be exposed to the installation and use of fastening devices and how to tie basic knots. This first week also includes an introduction to TIA/EIA standards, need for structured cabling systems, unshielded twisted pair cables and connecting hardware.
Week Two: Fiber optic overview of different optical cables, connectors and connection joints. This week will teach the student how to how to properly install, test and certify fiber optical cables. Also, included in this week is safety on the job site, properly hoisting loads, hand signals, metric system and working around energized circuits. The second week concludes with the fundamentals of blueprints, scales, mechanical and electrical symbols, using elevations and schedules properly.

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APSC 112 DC THEORY, CODES & PRACTICES, BOXES, CONNECTORS & RACEWAYS
Formerly: APRT 131
Prerequisite: Indentured to the Northern California Sound and Communication Joint Apprenticeship and Training Committee as an Apprentice Installer/Technician.
6.66 hours lecture-laboratory.
Week One: Introduction to the National Electrical Code. Including how to interpret and apply the language and articles within the NEC. Week one also introduces the student to the international building code, boxes, connectors and raceways.
Week Two: Study of DC theory. In this week the student will learn how electricity works and how to calculate and measure voltage, current, resistance and power in both a series and parallel DC circuit.

APSC 121 AC THEORY, POWER QUALITY, FIRE & ALARM SYSTEMS & GROUNDING
Formerly: APRT 122
Prerequisite: Indentured to the Northern California Sound and Communication Joint Apprenticeship and Training Committee as an Apprentice Installer/Technician.
6.66 hours lecture-laboratory.
Week One: Study of AC theory. The week starts off reviewing direct current theory and introduces the student to alternating current theory. The student will learn about sine waves, inductance, inductive reactance, capacitive reactance, frequency and AC impedance. The student will calculate voltage, current, impedance and power in both a series and parallel AC circuit. Also included in this week is an introduction to power quality. This introduction concentrates on how power quality relates to communication systems.
Week Two: Study of fire alarm systems and grounding. The student will study the fundamentals of fire alarm systems including: initiating and notification devices, testing and maintenance. Students will build a small scale fire alarm system using Norcal’s fire alarm trainers. The students are also introduced to the theory and practices of grounding and how proper grounding relates to safety and system performance.

APSC 122 SECURITY, ACCESS CONTROL, TELEPHONY & PAGING SYSTEMS
Formerly: APRT 123
Prerequisite: Indentured to the Northern California Sound and Communication Joint Apprenticeship and Training Committee as an Apprentice Installer/Technician.
6.66 hours lecture-laboratory.
Week One: Study of the different components of security systems, including magnetic contacts, motion sensors and control panels. Students will study the different components of access control systems, including card, code and biometric readers. Students will learn to design and layout security systems and electronic access control systems.
Week Two: Develop an understanding of telephone systems and how they are wired. Students will learn the different systems such as electronic key systems and PBX systems and study troubleshooting practices in telephone systems. Students will learn the different components involved when installing a paging system and learn how to install a speaker properly. At the completion of this course the student will demonstrate their understanding of these systems by applying their knowledge in hands on laboratory assignments.

APSC 131 SEMICONDUCTORS, NURSE CALL, AUDIO VISUAL SYSTEMS
Formerly: APRT 160
Prerequisite: Indentured to the Northern California Sound and Communication Joint Apprenticeship and Training Committee as an Apprentice Installer/Technician.
6.66 hours lecture-laboratory.
Week One: Study of audio visual technology that includes planning and installing cabling, coax and fiber optics, networking and rough-in. This week also includes audio and video fundamentals, properties of sound, distributed audio and video, planning and testing of audio visual systems. Students will perform hands on design and work with an entertainment and applications platform.
Week Two: Develop an understanding of semiconductors and how they work. Students will be introduced to diodes and transistors, learn how to determine transistor types, how semiconductors work in power supplies and how they are used in amplifiers. Students will be introduced to the characteristics of silicon controlled rectifiers and how to test them. This week also includes an introduction to nurse call systems. The student will be given an introduction to nurse call fundamentals, which includes system components, ancillary systems, system design, installation and troubleshooting techniques. Students will work hands on building a small scale nurse call system.

APSC 132 CCTV SYSTEMS, FIRE/LIFE SAFETY, & VOICE DATA VIDEO (VDV) STATE CERTIFICATION PREPARATION
Formerly: APRT 161
Prerequisite: Indentured to the Northern California Sound and Communication Joint Apprenticeship and Training Committee as an Apprentice Installer/Technician.
6.66 hours lecture-laboratory.
Week One: Advanced study of closed circuit television systems. Students will learn about video camera types, lenses, optics, and lighting characteristics; study signal transmission methods. Students will learn about Plasma, LCD and OLED displays, construct a small scale CCTV system that includes different cameras and switchers reporting to a digital video recorder.
Week Two: Prepare the student for the Fire/Life Safety and Voice Data Video state certification exam. This session includes review of navigating the NEC and NFPA 72 Codes, overview of the certification application process and a lecture on most aspects of the Voice Data Video industry. The course concludes with sample exam tests using Sound & Communication’s Classroom Performance System.

APPRENTICESHIP: PIPE TRADES, SHEET METAL, FIELD IRONWORKERS, ELEVATORS
Computers, Technology & Information Systems (650) 949-7236
APRT 106A SHEET METAL CONTROL SYSTEMS (FIFTH-YEAR SERVICE)
Prerequisite: current employment in the sheet metal industry.
9 hours lecture-laboratory.
Development of skills necessary for sheet metal workers to service air conditioning equipment with emphasis on control methods and systems, computerized building management, zone control and variable air volume systems.
APRT 106B ENERGY MANAGEMENT & CUSTOMER SERVICE (FIFTH-YEAR SERVICE)
Prerequisite: Admission to Sheet Metal Apprenticeship Program; current employment in the sheet metal industry.
9 hours lecture-laboratory.
Development of skills necessary for sheet metal workers to service air conditioning equipment with emphasis on digital control systems, energy management, business and shop operations and OSHA regulations.
APRT 107A ADVANCED SHEET METAL SERVICE I
Prerequisite: Admission to Sheet Metal Apprenticeship Program; current employment in the sheet metal industry.
6 hours lecture-laboratory.
In-depth study of HVAC systems, electricity, measurements; testing, adjusting and balancing for sheet metal service persons. Fluid flow, heat transfer, motors, starters and equations commonly used for testing will be covered.
APRT 107B ADVANCED SHEET METAL SERVICE II
Prerequisite: Admission to Sheet Metal Apprenticeship Program; current employment in the sheet metal industry.
6 hours lecture-laboratory.
Continued in-depth study of HVAC systems. Air balancing, hydronic systems, pumps, U.S. and metric equivalents and conversions, heat and refrigeration will be covered.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>APRT 111</td>
<td>COMPUTER LITERACY FOR SHEET METAL TRAINING</td>
<td>1.5</td>
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<tr>
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<td>TRADE APPRENTICES</td>
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<td></td>
<td>Prerequisite: Enrolled in an apprenticeship program; current employment in a construction trade.</td>
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<td>3 hours lecture-laboratory.</td>
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<td></td>
<td>Introduction to general computer principles and basic computer operations. Topics will include hardware familiarity, basic system analysis and design, beginning database and word processing and BASIC language as it relates to the trades.</td>
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<tr>
<td>APRT 143A</td>
<td>AIR BALANCE TEST EQUIPMENT &amp; INSTRUMENTS (FIRST YEAR)</td>
<td>4.5</td>
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<td></td>
<td>Prerequisite: Admission to Sheet Metal Apprentices Program; current employment in the sheet metal industry.</td>
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<td></td>
<td>9 hours lecture-laboratory.</td>
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<td></td>
<td>Development of skills necessary to use test and balance instruments and equipment for HVAC systems and automatic control systems. Use of practical mathematics and mathematical equations to measure air velocity and duct outlet, and to solve air and hydronic balancing problems.</td>
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<tr>
<td>APRT 143B</td>
<td>TEMPERATURE MEASUREMENT INSTRUMENTS &amp; DUCT SYSTEMS (FIRST YEAR)</td>
<td>4.5</td>
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<td></td>
<td>Prerequisite: Admission to Sheet Metal Apprentices Program; current employment in the sheet metal industry.</td>
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<td>9 hours lecture-laboratory.</td>
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<tr>
<td></td>
<td>Continuing study of skills necessary to test and balance instruments and equipment for HVAC systems and automatic control systems. Use of practical mathematics and mathematical equations to measure air velocity and duct outlet, and to solve air and hydronic balancing problems.</td>
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<tr>
<td>APRT 144A</td>
<td>INTRODUCTION TO MARINE SHEET METAL TRAINING FOR APPRENTICES I</td>
<td>2.5</td>
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<td></td>
<td>Prerequisite: Admission to Sheet Metal Apprentices Program; current employment in the sheet metal industry.</td>
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<td>4.5 hours lecture-laboratory.</td>
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<td></td>
<td>Working of metals in sheet form. Structural shapes, such as angle bar, channels, flat bar, rod and wire are also extensively used. Metals of varying thicknesses, from a few thousandths of an inch to (\frac{1}{64}) of an inch, are used. Proper techniques and procedures are demonstrated for the different characteristics of each metal studied. Some of the metals used are copper, brass, bronze, lead, zinc, aluminum, black and galvanized iron, monel and stainless steel.</td>
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<tr>
<td>APRT 144B</td>
<td>INTRODUCTION TO MARINE SHEET METAL TRAINING FOR APPRENTICES II</td>
<td>2.5</td>
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<td></td>
<td>Prerequisite: Admission to Sheet Metal Apprentices Program; current employment in the sheet metal industry.</td>
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<td>4.5 hours lecture-laboratory.</td>
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<td></td>
<td>Continuation of working with metals in sheet form. Structural shapes, such as angle bar, channels, flat bar, rod and wire are also extensively used. Metals of varying thicknesses, from a few thousandths of an inch to (\frac{1}{64}) of an inch, are used. Proper techniques and procedures are demonstrated for the different characteristics of each metal studied. Some of the metals used are copper, brass, bronze, lead, zinc, aluminum, black and galvanized iron, monel and stainless steel.</td>
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<tr>
<td>APRT 145</td>
<td>UNIFORM MECHANICAL CODE</td>
<td>2</td>
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<td></td>
<td>Prerequisite: Admission to Sheet Metal Apprentices Program; current employment in the sheet metal industry.</td>
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<td>4 hours lecture-laboratory.</td>
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<td>Study of the mechanical code as it relates to the sheet metal trade. Topics include terminology, definitions, heating, ventilating, cooling, combustion air, venting of appliances, duct work, fire dampers, control systems, various life safety systems, skylights and various architectural sheet metal.</td>
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<tr>
<td>APRT 146</td>
<td>BASIC SERVICE SUPERVISION &amp; JOB MANAGEMENT; ENVIRONMENTAL SAFETY FOR SHEET METAL APPRENTICES</td>
<td>3</td>
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<td></td>
<td>Prerequisite: Admission to Sheet Metal Apprentices Program; current employment in the sheet metal industry.</td>
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<td></td>
<td>6 hours lecture-laboratory.</td>
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<td></td>
<td>Development of skills in basic service, supervision, and job management; training in working safely around hazardous materials related to the sheet metal industry.</td>
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<tr>
<td>APRT 147A</td>
<td>INTRODUCTION TO A ARCHITECTURAL BLUEPRINT * READING &amp; INTERPRETATION</td>
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<td></td>
<td>Prerequisite: Admission to Sheet Metal Apprentices Program; current employment in the sheet metal industry.</td>
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<td>6 hours lecture-laboratory.</td>
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<td></td>
<td>Introduction to reading architectural and structural plans and specifications. Skill development in blueprint interpretation.</td>
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<tr>
<td>APRT 147B</td>
<td>ADVANCED ARCHITECTURAL BLUEPRINT READING &amp; INTERPRETATION</td>
<td>3</td>
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<tr>
<td></td>
<td>Prerequisite: Admission to Sheet Metal Apprentices Program; current employment in the sheet metal industry.</td>
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<td>6 hours lecture-laboratory.</td>
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<td></td>
<td>Advanced reading of mechanical, electrical and specialty plans and specifications. Continued skill development in blueprint interpretation.</td>
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<tr>
<td>APRT 148A</td>
<td>SHEET METAL DETAILING I</td>
<td>3</td>
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<td></td>
<td>Prerequisite: Admission to Sheet Metal Apprentices Program; current employment in the sheet metal industry.</td>
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<td></td>
<td>6 hours lecture-laboratory.</td>
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<td></td>
<td>Reading and interpretation of design drawings and air conditioning duct systems; detailing of plans and specifications required to construct a building.</td>
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<tr>
<td>APRT 148B</td>
<td>SHEET METAL DETAILING II</td>
<td>3</td>
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<td></td>
<td>Prerequisite: Admission to Sheet Metal Apprentices Program; current employment in the sheet metal industry.</td>
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<td>6 hours lecture-laboratory.</td>
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<td></td>
<td>Continuation of reading and interpretation of design drawings; construction of duct systems; detailing of plans and specifications required to construct a building. Operation of HVAC equipment. Techniques for organizing the job and preparing for installation.</td>
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<tr>
<td>APRT 148C</td>
<td>ADVANCED SHEET METAL DETAILING *</td>
<td>2</td>
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<td></td>
<td>Prerequisite: Admission to Sheet Metal Apprentices Program; current employment in the sheet metal industry.</td>
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<td>4 hours lecture-laboratory.</td>
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<td>Design and engineer a building for air conditioning duct systems and specifications.</td>
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<tr>
<td>APRT 149A</td>
<td>ELECTRICAL SYSTEMS OPERATION, CONTROLS &amp; DEVICES (TAB-2)</td>
<td>4.5</td>
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<td></td>
<td>Prerequisite: Admission to Sheet Metal Apprentices Program; current employment in the sheet metal industry.</td>
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<td>9 hours lecture-laboratory.</td>
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<td>Study of individual electrical components and devices of control systems, and understanding their operation and relationship to each other. Identify and use instruments in measuring air movement. Learn how to interpret, use and understand drawings relating to the construction of a building.</td>
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<tr>
<td>APRT 149B</td>
<td>HVAC TESTING &amp; BALANCING PROCEDURES (TAB-2)</td>
<td>4.5</td>
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<td></td>
<td>Prerequisite: Admission to Sheet Metal Apprentices Program; current employment in the sheet metal industry.</td>
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<td>9 hours lecture-laboratory.</td>
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<td>Utilize skills and knowledge previously learned to apply methods of balancing HVAC systems. Balancing of systems will include both air and hydronic. Information gathered during the balancing will be used in completing reports required by the building engineer and owner.</td>
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</table>

All courses on this page are Title 5 degree applicable credit courses unless otherwise noted.

Foothill College 2010–2011 • www.foothill.edu
APRT 150A AIR DISTRIBUTION & MANUFACTURING SYSTEMS (TAB-3) 4.5 Units
Prerequisite: Admission to Sheet Metal Apprenticeship Program; current employment in the sheet metal industry. 9 hours lecture-laboratory.
The difference, advantages and disadvantages of pneumatic and direct digital control systems will be compared to electrical systems. Students will use laptop computers to access a control system from a remote location; take readings and make minor adjustments to the system. Clean room operation and protocol will be examined.

APRT 150B SYSTEMS INSTALLATION & TROUBLESHOOTING (TAB-3) 4.5 Units
Prerequisite: Admission to Sheet Metal Apprenticeship Program; current employment in the sheet metal industry. 9 hours lecture-laboratory.
Proper layout and installation procedures on various control systems. This will include system programming, adjustment, testing, maintenance and repair of the installed system.

APRT 151A INTERMEDIATE MARINE SHEET METAL TRAINING FOR APPRENTICES I 2.5 Units
Prerequisite: Admission to Sheet Metal Apprenticeship Program; current employment in the sheet metal industry. 4.5 hours lecture-laboratory.
In-depth study of metals in sheet form up to ¾ inch thickness. Further development and practice of pattern layout and fabrication, drawing, sketching and blueprint reading skills. Develop awareness of safety procedures and welding processes.

APRT 151B CONTROL SYSTEMS & CUSTOMER SERVICE I (TAB-4) 4.5 Units
Prerequisite: Admission to Sheet Metal Apprenticeship Program; current employment in the sheet metal industry. 9 hours lecture-laboratory.
Develop skills and knowledge of various control systems in use today in the HVAC test and air balance industry. Develop customer relations in order to effectively deal with the consumer.

APRT 153A CONTROL SYSTEMS & CUSTOMER SERVICE II (TAB-4) 4.5 Units
Prerequisite: Admission to Sheet Metal Apprenticeship Program; current employment in the sheet metal industry. 9 hours lecture-laboratory.
Continuation of APRT 153A. Develop skills and knowledge of various control systems in use today in the HVAC test and air balance industry. Further development customer relations in order to effectively deal with the consumer.

APRT 154A PROJECT MANAGEMENT FOR THE TEST & AIR BALANCE INDUSTRY (TAB-5) 4.5 Units
Prerequisite: Admission to Sheet Metal Apprenticeship Program; current employment in the sheet metal industry. 9 hours lecture-laboratory.
Develop skills and knowledge of project management in use today in the HVAC test and air balance industry. Develop customer relations to effectively deal with the customer, project foreperson, and project engineers.

APRT 154B HAZARDOUS MATERIAL RECOGNITION FOR THE TEST & AIR BALANCE INDUSTRY (TAB-5) 4.5 Units
Prerequisite: Admission to Sheet Metal Apprenticeship Program; current employment in the sheet metal industry. 9 hours lecture-laboratory.
Develop skills and knowledge to recognize hazardous materials in the HVAC test and air balance industry. Use personal protective equipment and tools properly as they relate to hazardous materials. Review current laws governing hazardous material recognition and response.

APRT 162 IBEW/NECA HISTORY FOR SOUND & COMMUNICATION 3 Units
Prerequisite: Admission to the Northern California Sound and Communications industry; employment in the sound and communications trade. 6 hours lecture-laboratory.

APRT 163 TRADE MATH & COMMUNICATION ELECTRONICS FOR SOUND & COMMUNICATION 3 Units
Prerequisite: Admission to the Northern California Sound and Communications industry; current employment in the sound and communications trade. 6 hours per week lecture-laboratory.

APRT 164 INSTALLING, TERMINATING, TESTING DATA & TELEPHONE SYSTEMS FOR SOUND & COMMUNICATION 3 Units
Prerequisite: Admission to the Northern California Sound and Communications industry; current employment in the sound and communications trade. 6 hours per week lecture-laboratory.
Study of Structured Premise Cabling System characteristics. In-depth study of standards and codes, plans, specifications and media used for cabling. Examination of connectors, grounding and bonding, retrofitting, firestopping and cable pulling. Instruction on understanding plans and specifications, transmission fundamentals, safety and professionalism.

APRT 170 INTRODUCTION TO THE ELEVATOR CONSTRUCTOR PROGRAM 3 Units
Prerequisite: Admission to Elevator Constructor’s Apprenticeship Program; current employment in the elevator industry. 6 hours lecture-laboratory.
Purpose, structure, rules and regulations of the Elevator Constructor’s apprentice program. Study of safety awareness, first aid, tools, customer relations and fundamentals of blueprint reading.

APRT 171 PIT STRUCTURES; GUIDE RAILS; OVERHEAD INSTALLATION; ROPING & RE-ROPING 3 Units
Prerequisite: Admission to Elevator Constructor’s Apprenticeship Program; current employment in the elevator industry. 6 hours lecture-laboratory.
Study of pit components. Installation of buffers, compensating sheaves, ropes or chains and when they are used. Steps in rail installation, machine and sheave installation. Study of car and counterweight assembly and roping. Basic math review.

APRT 172 BASIC ELECTRICITY; ELECTRICAL CIRCUITS; ELECTROMAGNETISM 3 Units
Prerequisite: Admission to Elevator Constructor’s Apprenticeship Program; current employment in the elevator industry. 6 hours lecture-laboratory.
APRT 173  ADVANCED ELECTRICITY; VOLTAGE, CURRENT & RESISTANCE; DC GENERATORS & MOTORS  3 Units
Prerequisite: Admission to Elevator Constructor's Apprenticeship Program; current employment in the elevator industry. 4 hours lecture-laboratory.
Continued study of electricity. Alternating current theory and AC motor theory. Measuring voltage, current and resistance. Types and components of DC generators and motors. DC machine maintenance and service.

APRT 174  INDUSTRY ELEVATOR CONSTRUCTION TRAINING; CONSTRUCTION WIRING; DOORS & OPERATORS  3 Units
Prerequisite: Admission to Elevator Constructor's Apprenticeship Program; current employment in the elevator industry. 4 hours lecture-laboratory.

APRT 175  HYDRAULICS FOR ELEVATOR CONSTRUCTORS; ESCALATORS & MOVING WALKS  3 Units
Prerequisite: Admission to Elevator Constructor's Apprenticeship Program; current employment in the elevator industry. 4 hours lecture-laboratory.
Basic hydraulic theory. Different types of hole drilling. Installing the casing and power unit, and connecting pipe lines. Welding procedures for the cylinder and plumbing the jack. Assembly of the car sling and cab. Hydraulic troubleshooting. Rigging safety for escalators and moving walks. Escalator and moving walk mechanical and electrical components and installation procedures.

APRT 176  CIRCUIT TRACING; BASIC ELEVATOR SOLID STATE ELECTRONICS  3 Units
Prerequisite: Admission to Elevator Constructor's Apprenticeship Program; current employment in the elevator industry. 4 hours lecture-laboratory.
Basic hydraulic theory. Different types of hole drilling. Installing the casing and power unit, and connecting pipe lines. Welding procedures for the cylinder and plumbing the jack. Assembly of the car sling and cab. Hydraulic troubleshooting. Rigging safety for escalators and moving walks. Escalator and moving walk mechanical and electrical components and installation procedures.

APRT 177  BASIC ELEVATOR SOLID STATE ELECTRONICS II  3 Units
Prerequisite: Admission to Elevator Constructor's Apprenticeship Program; current employment in the elevator industry. 4 hours lecture-laboratory.
Continued study of basic elevator solid state electronics. Theory of inductors, diodes, zener diodes, light emitting diodes (LEDs) and photodiodes. Transistor and SCR theory. Study of analog integrated circuit development, integrated power supplies and OpAmp integrated circuits. Logic gate theory of AND, OR, NOR, NOT, XOR and XNOR gates. Preparation for NEIP Mechanics Exam.

APRT 180  MECHANICAL PIPING & RIGGING  2.5 Units
Prerequisite: Admission to Pipe Trades Residential Specialist Apprenticeship Program; current employment in the pipe trades industry. 4.5 hours lecture-laboratory.
Study and hands-on practice of safe rigging, handling and installation of mechanical equipment and piping.

APRT 185  LEAD HAZARD TRAINING  2 Units
Prerequisite: Admission to Ironworkers Apprenticeship Program; current employment in the ironworking industry. 4 hours lecture-laboratory.
A study of the history of lead and the health hazards of lead exposure in the ironworking trade. Teaches those elements of knowledge, coordination and skill needed for safety, stressing the use of proper protective equipment and work methods. OSHA regulations, sampling methods and legal rights of workers. First Aid/CPR training for certification.

APRT 188  SMALL STRUCTURE ERECTION  2 Units
Prerequisite: Admission to Ironworkers Apprenticeship Program; current employment in the ironworking industry. 4 hours lecture-laboratory.
An introduction to small structure erection of prefab and precast concrete buildings. Study of charts, tables, blueprints, anchors, framing and fasteners. Particular emphasis given to the rigging, handling and installing of precast concrete members.

APRT 193  TYPES & USES OF PIPE JOINTS  2.5 Units
Prerequisite: Admission to Pipe Trades Residential Specialist Apprenticeship Program; current employment in the pipe trades industry. 4.5 hours lecture-laboratory.
Overview of those elements of knowledge, coordination and skill needed in the safe and economical erection of a precast concrete building, placing particular emphasis on the rigging, handling and installation of the precast concrete members themselves.

APRT 194  BUILDING PLUMBING TREES  2.5 Units
Prerequisite: Admission to Pipe Trades Residential Specialist Apprenticeship Program. 4.5 hours lecture-laboratory.
An introduction to the construction of plumbing trees. Course will include definitions and materials used for plumbing trees, ABS, water and gas piping, testing for tightness, and backing and strapping.

APRT 195A  INTERMEDIATE TRADE MATHEMATICS FOR PLUMBING RESIDENTIAL SPECIALISTS  4.5 Units
Prerequisite: Admission to Pipe Trades Residential Specialist Apprenticeship Program; APRT 124. 9 hours lecture-laboratory.
A continuation of trade mathematics for residential specialist plumbers. Course includes advanced piping measurements and offsets.

APRT 196A  INTERMEDIATE BLUEPRINT READING & ISOMETRIC DRAWING FOR PLUMBING RESIDENTIAL SPECIALISTS  4.5 Units
Prerequisite: Admission to Pipe Trades Residential Specialist Apprenticeship Program; current employment in the pipe trades industry. 9 hours lecture-laboratory.
A continuation of blueprint reading and isometric drawing for residential specialist plumbers. Course includes isometric piping drawings, piping codes, waste and vent piping drawings, hot and cold water and storm drainage drawings, and gas piping drawings.
APRT 197A INTERMEDIATE PLUMBING FIXTURES 2.5 Units & APPLIANCES
Prerequisite: APRT 126; Admission to Pipe Trades Residential Specialist Apprenticeship Program.
4.5 hours lecture-laboratory.
A continuation of plumbing fixtures and appliances which includes installation of plumbing fixtures, code requirements, finishing tools and anchors, plumbing trim material, accessories, and special purpose installations.

APRT 198 RESIDENTIAL PLUMBING SERVICE 2.5 Units & REPAIR
Prerequisite: Admission to Pipe Trades Residential Specialist Apprenticeship Program.
4.5 hours lecture-laboratory.
Introduction to the tools, parts, equipment, techniques and practices of maintaining and repairing residential plumbing systems, past and contemporary, which would generally be encountered by those working exclusively in the housing industry.

APRT 199 RESIDENTIAL MECHANICAL SERVICE 2.5 Units & REPAIR
Prerequisite: Admission to Pipe Trades Residential Specialist Apprenticeship Program.
4.5 hours lecture-laboratory.
Introduction to residential mechanical equipment service and repair. Focus is on system operation, periodic maintenance and minor repair of heating and cooling equipment encountered by those working exclusively in the housing industry.

ART
Fine Arts & Communication (650) 949-7262 www.foothill.edu/fa/

ART 1 INTRODUCTION TO ART 4.5 Units
4 hours lecture, 1.5 hours laboratory.
An introduction to new ways of thinking about the visual arts, including examinations of the visual elements and artistic media, particularly as they contribute to the development of visual literacy. Includes analysis of western and non-western traditions in the visual arts within a social and historical context. [Foothill GE: Humanities; Transferability: UC/CSU]

ART 2A HISTORY OF ART: HISTORY OF WESTERN ART FROM PREHISTORY THROUGH EARLY CHRISTIANITY 4.5 Units
Advisory: Not open to students with credit in ART 2AH.
4 hours lecture, 1.5 hours laboratory.
History of Western art from Prehistory through Early Christianity. An introductory survey examining images, objects, and architecture produced from the Paleolithic era to the end of the Roman Empire. We will discuss Prehistoric, Mesopotamian, Egyptian, Greek, Roman, and Early Byzantine culture. Illustrated lectures and readings. The honors sections expand the primary sources for the student. In addition to the textbook, students have a reading list of sources (on reserve in the library). Lectures are more interactive and the student is expected to participate in group discussions. Exams are more exacting with an emphasis on the student being able to comfortably assimilate political, social, and economic factors into their analysis. [Foothill GE: Humanities; Transferability: UC/CSU]

ART 2AH HONORS ART HISTORY: HISTORY OF WESTERN ART FROM PREHISTORY THROUGH EARLY CHRISTIANITY 4.5 Units
Prerequisite: Honors Institute participant.
4 hours lecture, 1.5 hours laboratory.
A chronological and thematic examination of arts produced by a historical context and as part of a larger matrix of myth, ritual, religious belief, politics, and worldview. Includes an examination of art from West Africa (e.g., Nigeria: Ife, Benin, Yoruba, Igbo, etc.), Melanesia (e.g., New Guinea), Polynesia (e.g., Hawaii, Rapa Nui, New Zealand), and Native North America. Includes the influences of these diverse non-Western arts on American art and society. Art objects will be analyzed within the relevant social and historical context and as part of a larger matrix of myth, ritual, religious belief, politics, and worldview. Includes an examination of art from West Africa (e.g., Nigeria: Ife, Benin, Yoruba, Igbo, etc.), Melanesia (e.g., New Guinea), Polynesia (e.g., Hawaii, Rapa Nui, New Zealand), and Native North America.

ARABIC
Program offered by Foothill-De Anza Community Education IMPACT Program. (408) 864-8817; www.shortcourses.fhda.edu.

ART 2B HISTORY OF WESTERN ART FROM THE MIDDLE AGES TO THE RENAISSANCE 4.5 Units
Advisory: Not open to students with credit in ART 2B.
4 hours lecture, 1.5 hours laboratory.
A History of Western art from ca. 600 through ca. 1600. This course examines the Middle Ages and the Renaissance using images, objects, and architecture to develop a comprehensive understanding of the social, political, and religious forces that shaped this period. Illustrated lectures and readings. The honors sections expand the primary sources for the student. In addition to the textbook, students have a reading list of sources (on reserve in the library). Lectures are more interactive and the student is expected to participate in group discussions. Exams are more exacting with an emphasis on the student being able to comfortably assimilate political, social, and economic factors into their analysis. [Foothill GE: Humanities; Transferability: UC/CSU]

ART 2BH HONORS HISTORY OF WESTERN ART FROM THE MIDDLE AGES TO THE RENAISSANCE 4.5 Units
Prerequisite: Honors Institute participant.
Advisory: Not open to students with credit in ART 2B.
4 hours lecture, 1.5 hours laboratory.
A History of Western art from ca. 600 through ca. 1600. This course examines the Middle Ages and the Renaissance using images, objects, and architecture to develop a comprehensive understanding of the social, political, and religious forces that shaped this period. Illustrated lectures and readings. The honors sections expand the primary sources for the student. In addition to the textbook, students have a reading list of sources (on reserve in the library). Lectures are more interactive and the student is expected to participate in group discussions. Exams are more exacting with an emphasis on the student being able to comfortably assimilate political, social, and economic factors into their analysis. [Foothill GE: Humanities; Transferability: UC/CSU]

ART 2C HISTORY OF WESTERN ART FROM THE BAROQUE TO POST IMPRESSIONISM 4.5 Units
Advisory: Not open to students with credit in ART 2C.
4 hours lecture, 1.5 hours laboratory.
History of Western Art from ca. 1600 to the 20th century. An introductory survey examining images, objects, and architecture produced from the late Renaissance to Post-Impressionism. Illustrated lectures and readings. [Foothill GE: Humanities; Transferability: UC/CSU]

ART 2CH HONORS HISTORY OF WESTERN ART FROM THE BAROQUE TO POST IMPRESSIONISM 4.5 Units
Prerequisite: Honors Institute participant.
Advisory: Not open to students with credit in ART 2C.
4 hours lecture, 1.5 hours laboratory.
History of Western Art from ca. 1600 to the 20th century. An introductory survey examining images, objects, and architecture produced from the late Renaissance to Post-Impressionism. Illustrated lectures and readings. The honors sections expand the primary sources for the student. In addition to the textbook, students have a reading list of sources (on reserve in the library). Lectures are more interactive and the student is expected to participate in group discussions. Exams are more exacting with an emphasis on the student being able to comfortably assimilate political, social, and economic factors into their analysis. [Foothill GE: Humanities; Transferability: UC/CSU]

ART 2D AFRICAN, OCEANIC & NATIVE AMERICAN ART 4.5 Units
4 hours lecture, 1.5 hours laboratory.
A chronological and thematic examination of arts produced by a selection of societies from Africa, Oceania, and Native North America. Includes the influences of these diverse non-Western arts on American art and society. Art objects will be analyzed within the relevant social and historical context and as part of a larger matrix of myth, ritual, religious belief, politics, and worldview. Includes an examination of art from West Africa (e.g., Nigeria: Ife, Benin, Yoruba, Igbo, etc.), Melanesia (e.g., New Guinea), Polynesia (e.g., Hawaii, Rapa Nui, New Zealand), and Native North America. Includes the influences of these diverse non-Western arts on American art and society. Art objects will be analyzed within the relevant social and historical context and as part of a larger matrix of myth, ritual, religious belief, politics, and worldview.

All courses on this page are Title 5 degree applicable credit courses unless otherwise noted.
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ART 4E  PORTRAIT DRAWING  3 Units
Advisory: ART 4A & 4B recommended.
May be taken 3 times for credit.
6 hours lecture-laboratory.
Fundamentals of drawing the human head. Emphasis on use of charcoal
and pastel to render the head in light and shadow. [Transferability: UC/ CSU]

ART 4F  LANDSCAPE DRAWING  3 Units
6 hours lecture-laboratory.
Introductory course in drawing representational landscape and natural
forms. Practice in rendering plants and landscape elements in their
environment. Class may focus on pencil, pen, ink wash and colored pencil
techniques. [Transferability: UC/CSU]

ART 5A  BASIC TWO-DIMENSIONAL DESIGN  3 Units
Advisory: Students taking this course to satisfy the AA/AS General
Education requirement or CSU GE in Humanities must complete ART 5AX.
6 hours lecture-laboratory.
Introduction to two dimensional design elements, principles of
composition, and design components that include content development,
visual perception, and material exploration. And emphasis on problem
solving techniques and personal discovery. [Foothill GE: Humanities;
Transferability: UC/CSU]

ART 5AX  STUDIO ART SEMINAR: DESIGN  1 Unit
Formerly: ART 15AX
1 hour lecture
Examination and critique of two dimensional art. [Foothill GE: Humanities;
Transferability: UC/CSU]

ART 5B  THREE-DIMENSIONAL DESIGN  3 Units
Advisory: ART 4A & 5A.
6 hours lecture-laboratory.
Introduction to three-dimensional design elements and principals with an
emphasis on sculptural and structural concepts applied in projects
using various materials. [Transferability: UC/CSU]

ART 5L  DESIGN LABORATORY  1 Unit
Corequisite: ART 5A or 5B.
May be taken 3 times for credit.
3 hours laboratory.
Supervised studio practice in design projects. [Transferability: CSU; UC
approval is pending.]

ART 6  COLLAGE & COMPOSITION  3 Units
Advisory: ART 4A or 5A.
May be taken 3 times for credit.
6 hours lecture-laboratory.
Studio experience in structuring the elements of visual form using, but
not limited to, the exploratory medium of collage. Development of a
personal sensitivity to visual organization and the vocabulary of art as it
relates to expressiveness and content. [Transferability: UC/CSU]

ART 8  BASIC PERSPECTIVE DRAWING  3 Units
May be taken 3 times for credit.
6 hours lecture-laboratory.
Sketching objects realistically in linear representation. Exploring
ways to depict three-dimensional space on a flat drawing surface.
[Transferability: UC/CSU]

ART 9  MATERIALS & MEDIA  3 Units
6 hours lecture-laboratory.
An introduction to basic materials and techniques of the artist with
practical experience in their simple applications. No required background
or experience required. [Transferability: UC/CSU]

ART 11  INTRODUCTION TO MEXICAN ART & ARCHITECTURE  4 Units
4 hours lecture.
A study of the influence of Spanish colonization and the impact on
indigenous art and architecture. Emphasis on both the transformation
of identity in art as a result of the cross cultural experience and the
changing perceptions of culture on a local and global level. Emphasis on
the similarities and differences of various cultural perspectives in
art making beginning with Mexico and the United States. [Foothill GE:
Humanities; Transferability: UC/CSU]

ART 12 INTRODUCTION TO ASIAN ART 4.5 Units
4 hours lecture, 1.5 hours laboratory.
An introduction to the arts of India, China and Japan from the Neolithic Age
to the present, covering painting, sculpture, architecture and ceramics.
This course emphasizes the cultural, social and historical meaning of
art and traces the changes in style, meaning, and use of art within the
broader context of the great religious traditions of China, Japan, and India.
[Transferability: UC/CSU]

ART 13 INTRODUCTION TO ISLAMIC ART 4.5 Units
4 hours lecture, 1.5 hours laboratory.
The arts and architecture of the Islamic peoples from the seventh through the
20th Century. [Transferability: UC/CSU]

ART 14 AMERICAN ART 4.5 Units
4 hours lecture, 1.5 hour laboratory.
A history of the culturally diverse arts produced in North America
(specifically the United States) from prehistory to the present. American
art is considered thematically and chronologically, focusing on the
important influences on art of nature, landscape, urbanization, gender,
race, religion, ethnicity, socio-economic and political reforms, and civil
and international wars. [Foothill GE: Humanities; Transferability: UC/
CSU]

ART 19A PAINTING 3 Units
Advisory: ART 4A or 5A; ART 4B or 20A.
6 hours lecture-laboratory.
Studio experiences in basic techniques of painting and composition using
oil and/or acrylic paints. [Transferability: UC/CSU]

ART 19B PAINTING 3 Units
Prerequisite: ART 19A.
6 hours lecture-laboratory.
Continuation of ART 19A. Further studies in studio techniques.
[Transferability: UC/CSU]

ART 19C PAINTING 3 Units
Advisory: ART 19B.
6 hours lecture-laboratory.
May be taken 2 times for credit.
Advanced studio experiences in techniques of painting and composition
using oil and/or acrylic paints. [Transferability: UC/CSU]

ART 19L PAINTING LABORATORY 1 Unit
Advisory: Pass/No Pass.
Corequisite: ART 19A, 19B, or 19C.
3 hours laboratory.
Supervised studio practice in painting projects. [Transferability: UC/CSU]

ART 20A COLOR 3 Units
6 hours lecture-laboratory.
A fundamental course in color and its creative application.
[Transferability: UC/CSU]

ART 20B COLOR 3 Units
Prerequisite: ART 20A.
6 hours lecture-laboratory.
Continued practice in creative application of color theory with emphasis
on the study of perception, simultaneous contrast and Munsell theory.
[Transferability: UC/CSU]

ART 35X HONORS SPECIAL PROJECTS IN ART 1.5 Units
May be taken 6 times for credit.
4.5 hours laboratory.
Individual advanced projects in painting, drawing, sculpture, ceramics
and photography. [Transferability: CSU]
ART 44L  CERAMICS LABORATORY .5 Unit
Advisory: Pass/No Pass.
Corequisite: ART 44.
May be taken 2 times for credit.
2 hours laboratory.
Supervised studio practice in ceramics processes, related to skills and materials being presented in ART 44. [Transferability: CSU]

ART 45A  BEGINNING CERAMICS HANDBUILDING 3 Units
Advisory: Concurrent enrollment in ART 45AL; students taking this course to satisfy the AA/AS General Education requirement or CSU GE in humanities must complete ART 45AX.
May be taken 2 times for credit.
6 hours lecture-laboratory.
An introduction to techniques of hand-building and basic glazing. [Foothill GE: Humanities; Transferability: UC/CSU]

ART 45AL  CERAMICS LABORATORY .5 Unit
Advisory: Pass/No Pass.
Corequisite: ART 45A.
May be taken 2 times for credit.
2 hours laboratory.
Supervised studio practice in ceramics processes, related to skills and materials being presented in ART 45A. [Transferability: CSU; UC approval is pending.]

ART 45AX  STUDIO ART SEMINAR: CERAMICS (HANDBUILDING) 1 Unit
1 hour lecture.
Examination and critique of ceramic art (hand-building). [Foothill GE: Humanities; Transferability: UC/CSU]

ART 45B  BEGINNING CERAMICS POTTER'S WHEEL 3 Units
Advisory: Concurrent enrollment in ART 45BL recommended; students taking this course to satisfy the CSU General Education requirement in humanities must complete ART 45AX.
May be taken 2 times for credit.
6 hours lecture-laboratory.
An introduction to techniques of throwing on the potter's wheel and basic glazing. [Transferability: UC/CSU]

ART 45BL  CERAMICS LABORATORY .5 Unit
Advisory: Pass/No Pass.
Corequisite: ART 45B.
May be taken 2 times for credit.
2 hours laboratory.
Supervised studio practice in ceramics processes, related to skills and materials being presented in ART 45B. [Transferability: UC/CSU]

ART 45BX  STUDIO ART SEMINAR: CERAMICS (WHEEL THROWING) 1 Unit
1 hour lecture.
Examination and critique of ceramic arts (wheel-throwing). [Transferability: UC/CSU]

ART 45C  ADVANCED CERAMICS 3 Units
Prerequisite: ART 45A and 45B.
Advisory: Concurrent enrollment in ART 45CL or 45LX recommended.
May be taken 2 times for credit.
6 hours lecture-laboratory.
Laboratory practice in throwing advanced forms on the potter's wheel, combining hand-built and wheel-thrown forms, glazing these forms, and understanding kiln loading and firing procedures. [Transferability: UC/CSU]

ART 45CL  CERAMICS LABORATORY .5 Unit
Advisory: Pass/No Pass.
Corequisite: ART 45C.
May be taken 2 times for credit.
2 hours laboratory.
Supervised studio practice in ceramics processes, related to skills and materials being presented in ART 45C. [Transferability: CSU; UC approval is pending.]

ART 45F  LOW-TEMPERATURE CERAMIC FIRING & GLAZING TECHNIQUES 3 Units
Prerequisite: ART 45A or 45B.
Advisory: Concurrent enrollment in ART 45FL recommended.
May be taken 2 times for credit.
6 hours lecture-laboratory.
Studio practice in the glazing and firing of ceramic pieces using four low-temperature methods: electric kiln oxidation firing, luster firing, raku firing and pit firing. [Transferability: UC/CSU]

ART 45FL  CERAMICS LABORATORY .5 Unit
Advisory: Pass/No Pass.
Corequisite: ART 45F.
May be taken 2 times for credit.
2 hours laboratory.
Supervised studio practice in ceramics processes, related to skills and materials being presented in ART 45F. [Transferability: CSU; UC approval is pending.]

ART 45LX  CERAMICS LABORATORY .5 Unit
Advisory: Concurrent enrollment in a 2 or 3 unit ceramics course.
May be taken 2 times for credit.
2 hours laboratory.
Supervised studio practice in ceramics processes, related to skills and materials of other ceramics courses in which the student is currently enrolled. [Transferability: UC/CSU]

ART 46B  POTTER'S WHEEL II 3 Units
Prerequisite: ART 45B.
Advisory: Concurrent enrollment in ART 45L recommended.
May be taken 2 times for credit.
6 hours lecture-laboratory.
Provides intermediate level instruction in clay processes covering intermediate wheel-throwing methods, glazing, decorating, and firing procedures. Explores technical problem solving, and creative design. [Transferability: CSU]

ART 47  WATERCOLOR 3 Units
Advisory: ART 4A or 5A; ART 4B, 20A.
May be taken 3 times for credit.
6 hours lecture-laboratory.
Study of transparent and opaque watercolor techniques. Emphasis on basic techniques of painting and composition. [Transferability: UC/CSU]

ART 49  MONOPRINTING 3 Units
Advisory: Not open to students with credit in GID 48.
May be taken 3 times for credit.
6 hours lecture-laboratory.
Studio experiences in printmaking methods that create one-of-a-kind fine art prints. Emphasis on artistic growth of imagery while developing technical skills with tools, media and techniques. [Transferability: CSU]

ART 56  DIGITAL ART & GRAPHICS 4 Units
Advisory: Familiarity with computer operating systems; ART 4A or GID 70; ART 5A; PHOT 1; not open to students with credit in GID 74, GRID 56 or PHOT 75.
May be taken 3 times for credit.
2 hours lecture, 2 hours lecture-laboratory, 3 hours laboratory.
Basic instruction using a computer for painting, drawing, image processing, photo composites and typography. Emphasis on image making and creative problem solving. [Transferability: UC/CSU]
ART 69 INTRODUCTION TO PRINTMAKING 3 Units
May be taken 3 times for credit.
6 hours lecture-laboratory.
Introduction to the basic processes of blockcut, intaglio, screen, mono- and mixed-media original prints. [Transferability: UC/CSU]

ART 72 STUDIO ART PORTFOLIO PREPARATION 3 Units
1 hour lecture, 5 hours lecture-laboratory
Preparation, organization, and assembly of previous and current artwork to create a cohesive studio art portfolio. This course enables students and practicing artists the preparation in creating a professional portfolio for transfer into higher institutions, career opportunities, art exhibitions, art competitions, funding, or professional practice. Documenting work, writing artist statements, practice interviews, and assembling portable portfolios are included in this course. [Transferability: CSU]

ART 80 MURAL MAKING: COMMUNITY ART PROJECT 3 Units
Advisory: ART 4A or 15A; ART 19A, 20A.
6 hours lecture-laboratory.
Design and production of public mural projects. Exploration of history, cultural empowerment, identity and communication through sight specific public art. Studio experience in basic painting techniques and composition. [Transferability: UC/CSU]

ART 83 SERVICE LEARNING PROJECTS 4 Units
Advisory: Entry level design and software courses recommended.
May be taken 3 times for credit.
6 hours lecture-laboratory, 3 hours laboratory.
Fulfillment of work-related assignments for on-campus and off-campus not-for-profit organizations. Faculty coordinator helps the student apply skills learned in graphic arts courses to community-based projects. Disciplines include graphic design, photography and studio art. [Transferability: CSU]

ART 86 PAINTING WITH THE COMPUTER 3 Units
Advisory: Familiarity with computer operations.
May be taken 3 times for credit.
6 hours lecture-laboratory.
Basic instruction using computers and computer software to produce images for artistic expression and graphic design. [Transferability: CSU]

ART 87 ART OF THE ELECTRONIC AGE 2 Units
2 hours lecture.
Study of electronic art emphasizing the use of technological equipment, lasers, video, computers, photography, digital media, multimedia and communication technology for exhibition, installation, demonstration, research and performance art. [Transferability: CSU]

ART 190 DIRECTED STUDY .5 Unit
ART 190X 1 Unit
ART 190Y 1.5 Units
ART 190Z 3 Units
Non-degree applicable credit course. 
Advisory: Pass/No Pass.
Any combination of ART 190–190Z may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit. 1.5 hours laboratory for each .5 unit of credit.
For students who desire or require additional help in attaining comprehension and competency in learning skills.

ASTRONOMY

Physical Sciences, Mathematics & Engineering  (650) 949-7259
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ASTR 10A GENERAL ASTRONOMY: STARS, GALAXIES, COSMOLOGY 5 Units
Fulfillment of work-related assignments for on-campus and off-campus not-for-profit organizations. Faculty coordinator helps the student apply skills learned in graphic arts courses to community-based projects. Disciplines include graphic design, photography and studio art. [Transferability: CSU]

ASTR 10L ASTRONOMY LABORATORY 1 Unit
1 hour lecture-laboratory, 2 hours laboratory, in-class field trips.
A hands-on approach to the scientific method, using astronomical data and equipment. Divided into small lab groups, students will do experiments and observing projects about a range of astronomical topics, including star and constellation finding, the phases of the Moon, the reasons for the seasons, the rotation, revolution, and sphericity of the Earth, the H-R Diagram and the classification of stars, Hubble’s Law and the expansion of the universe, the questionable validity of astrology, tracking the moons of Jupiter, etc. Each session will also include guided discussion of the meaning and importance of the data and how the particular activity fits into the larger scheme of understanding the universe and applying the scientific method. [Foothill GE: Natural Sciences; Transferability: UC/CSU]
ASTR 34H HONORS INSTITUTE SEMINAR 1 Unit
IN ASTRONOMY
Formerly: ASTR 34
Prerequisite: Honors Institute participant.
Advisory: Not open to students with credit in ASTR 34.
Corequisite: Completion of, or concurrent enrollment in ASTR 10A or 10B.
1 hour lecture.
A seminar in directed readings, discussions and projects in astronomy. Specific topics to be determined by the instructor. [Transferability: CSU; UC credit may be granted after transfer and upon portfolio review.]

ASTR 36 SPECIAL PROJECTS IN ASTRONOMY 1 Unit
ASTR 36X 2 Units
ASTR 36Y 3 Units
Any combination of ASTR 36–36Y may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit.
3 hours laboratory for each unit of credit.
A seminar in directed reading and discussion in astronomy. An opportunity to do astronomical research and observing at Foothill College Observatory. [Transferability: CSU]

BIOL 1A PRINCIPLES OF CELL BIOLOGY 6 Units
Prerequisite: CHEM 1A.
Advisory: Students taking the biology majors’ sequence (BIOL 1A, 1B, 1C, 1D) are strongly advised to take the sequence in order and in its entirety.
4 hours lecture, 2 hours lecture-laboratory, 4 hours laboratory.
An introduction to biological molecules, cellular structure and function, bioenergetics, the genetics of both prokaryotic and eukaryotic organisms, cell communication and signaling, the cell cycle, and elements of molecular biology. Intended for biology majors. [Foothill GE: Natural Sciences; Transferability: UC/CSU]

BIOL 1B FORM & FUNCTION IN PLANTS & ANIMALS 6 Units
Prerequisite: BIOL 1A.
Advisory: Students taking the biology majors’ sequence (BIOL 1A, 1B, 1C, 1D) are strongly advised to take the sequence in order and in its entirety.
4 hours lecture, 2 hours lecture-laboratory, 4 hours laboratory.
An introduction to the structure and physiological processes of plants and animals. Transport systems, reproduction, digestion, gas exchange, regulation of the internal environment, responses to external stimuli, nervous systems, hormones, and locomotion. [Foothill GE: Natural Sciences; Transferability: UC/CSU]

BIOL 1C EVOLUTION, SYSTEMATICS & ECOLOGY 6 Units
Prerequisite: BIOL 1A.
Advisory: Students taking the biology majors’ sequence (BIOL 1A, 1B, 1C, 1D) are strongly advised to take the sequence in order and in its entirety.
4 hours lecture, 2 hours lecture-laboratory, 4 hours laboratory.
Principles of evolutionary theory, classification of organisms, and basic ecology. Phylogenetic survey of the major groups of organisms (bacteria, protists, plants, animals and fungi) and their evolutionary history. [Foothill GE: Natural Sciences; Transferability: UC/CSU]

BIOL 1D MOLECULAR GENETICS 4 Units
Prerequisite: BIOL 1A.
Advisory: Students taking the biology majors’ sequence (BIOL 1A, 1B, 1C, 1D) are strongly advised to take the sequence in order and in its entirety; students may choose to take BIOL 1DL to obtain laboratory experience in this subject.
4 hours lecture.
An introduction to molecular biology with an emphasis in molecular genetics, cell communication, and developmental biology. [Transferability: UC/CSU]

BIOL 8 BASIC NUTRITION 5 Units
Advisory: MATH 200; eligibility for ENGL 1A.
5 hours lecture.
Introductory nutrition course intended for non-science majors. Basic biological function of nutrients. Nutritional needs throughout the life span. Relationship between nutrition and disease. Current scientific, social, and psychological issues and controversies in nutrition. Not intended for students wishing to pursue a career in health care. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]

BIOL 9 ENVIRONMENTAL BIOLOGY 4 Units
4 hours lecture.
An introduction to environmental biology and a survey of the biological and ecological principles needed to understand environmental issues. Global, national and local perspectives on current issues such as resource use, pollution, biodiversity and impacts of human population growth. [Foothill GE: Natural Sciences; Transferability: UC/CSU]

BIOL 9L ENVIRONMENTAL BIOLOGY LABORATORY 1 Unit
Corequisite: BIOL 9.
1 hour lecture-laboratory, 2 hours laboratory. In-class field trips.
An introduction to environmental biology through laboratory and field experiments, examination of local examples illustrating ecological concepts, use of sampling techniques to assess environmental quality, and student research of environmental topics. [Foothill GE: Natural Sciences; Transferability: UC/CSU]

BIOL 10 GENERAL BIOLOGY: BASIC PRINCIPLES 5 Units
4 hours lecture, 1 hour lecture-laboratory, 2 hours laboratory.
Methods of science and basic principles of biology. Special emphasis on genetics, ecology, overpopulation, nutrition and disease prevention. [Foothill GE: Natural Sciences; Transferability: UC/CSU]

BIOL 12 HUMAN GENETICS 4 Units
4 hours lecture.
An introduction to the nature of human inheritance. The molecular basis of inheritance, Mendelian genetics, population genetics, common human genetic diseases, factors affecting human diversity and the social and moral implications of recent advances in genetics. [Transferability: UC/CSU]

BIOL 13 MARINE BIOLOGY 5 Units
4 hours lecture, 1 hour lecture-laboratory, 2 hours laboratory, 3 all-day field trips.
An introduction to biology using marine animals, plants and ecosystems. Major emphasis given to the ecology and conservation issues with examples drawn from California marine life. Conceptual development of seashore, estuaries, coral reefs, kelp forests, and pelagic life as interrelated ecosystems. [Foothill GE: Natural Sciences; Transferability: UC/CSU]

BIOL 14 HUMAN BIOLOGY 5 Units
4 hours lecture, 1 hour lecture-laboratory, 2 hours laboratory.
An introduction to biology using human beings as the exemplary organism. The evolution and biological unity of the human species and all life forms; American and global patterns of human biological diversity; reproduction and heredity; how human organ systems function; humans and their environment; the uses and misuses of the scientific method; the scientific and biological bases for human equality. [Foothill GE: United States Cultures & Communities, Natural Sciences; Transferability: UC/CSU]

BIOL 15 CALIFORNIA ECOLOGY/ NATURAL HISTORY 5 Units
4 hours lecture, 1 hour lecture-laboratory, 2 hours laboratory, all-day field trips.
An introduction to ecology, natural history and field biology through the study, largely in an outdoor setting, of the plants and animals of the San Francisco Bay area. [Foothill GE: Natural Sciences; Transferability: UC/CSU]
BIOL 17  BIOTECHNOLOGY & SOCIETY  4 Units
4 hours lecture.
Scientific principles and techniques used in biotechnology. Use of molecular biology, cell biology, microbiology and immunology to solve problems of mankind and the environment. Current technical, ethical, social, and safety concerns presented by applications of biotechnology. [Transferability: UC/CSU]

BIOL 34H  HONORS INSTITUTE SEMINAR  1 Unit
IN BIOLOGY
Formerly: BIOL 34
Prerequisite: Honors Institute participant.
1 hour lecture.
A seminar in directed readings, discussions and projects in biology. Specific topics to be determined by the instructor. [Transferability: CSU; UC credit may be granted after transfer and upon portfolio review.]

BIOL 40A  HUMAN ANATOMY & PHYSIOLOGY I  5 Units
Prerequisite: High school biology or BIOL 10 or BIOL 14 or equivalent; high school chemistry or CHEM 30A or equivalent. Advisory: ENGL 1A, ESL 26 or equivalent.
4 hours lecture, 1 hour lecture-laboratory, 2 hours laboratory.
Basic human anatomy and physiology. Emphasis on integration of systems and homeostatic mechanisms. Physical and chemical basis of life, histology and integumentary, skeletal and muscular systems. Designed for majors that require fundamental background in human anatomy and physiology. Completion of this course is required for BIOL 40B. [Transferability: UC/CSU]

BIOL 40B  HUMAN ANATOMY & PHYSIOLOGY II  5 Units
Prerequisite: BIOL 40A or equivalent.
4 hours lecture, 1 hour lecture-laboratory, 2 hours laboratory.
Anatomy and physiology of the nervous system, cardiovascular system and respiratory system. Completion of this course is required for BIOL 40C. [Transferability: UC/CSU]

BIOL 40C  HUMAN ANATOMY & PHYSIOLOGY III  5 Units
Prerequisite: BIOL 40B or equivalent.
4 hours lecture, 1 hour lecture-laboratory, 2 hours laboratory.
Anatomy and physiology of the digestive system, endocrine system; fluid, electrolyte and acid/base balance; lymphatic system; endocrine system; and reproductive system. Completion of BIOL 40B is required for enrollment in this course. [Transferability: UC/CSU]

BIOL 41  MICROBIOLOGY  6 Units
Prerequisite: High school chemistry or CHEM 30A.
Advisory: ESL 25 and 235; critical reading skills and knowledge of English sentence structure; ability to comprehend spoken English in academic context.
4 hours lecture, 2 hours lecture-laboratory, 4 hours laboratory.
Morphology and physiology of bacteria, fungi and viruses. Mechanisms of pathogenicity, host-parasite relationships, the immune response and principles of disease transmission. Techniques of microbial control including sterilization, aseptic procedures, use of disinfectants, antisepsics and chemotherapy. [Foothill GE: Natural Sciences; Transferability: UC/CSU]

BIOL 45  INTRODUCTION TO HUMAN NUTRITION  4 Units
Prerequisite: CHEM 30A or 1 year of high school chemistry; BIOL 40A and 40C; BIOL 40A or 40C may be taken concurrently.
Advisory: ENGL 1A or ESL 26.
4 hours lecture.
Introduction to the medical aspects of nutrition. Biological function and chemical classification of nutrients. Nutritional needs throughout the lifespan. Effects of nutritional deficiencies and excesses. Recommended nutrient intakes and the role of diet in the development of chronic disease. Intended for students wishing to pursue a career in health care. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]

BIOL 58  FUNDAMENTALS OF PHARMACOLOGY  4 Units
Formerly: BIOL 46
Prerequisite: CHEM 30B; BIOL 40A, 40B, 40C.
Advisory: ENGL 1A or ESL 26; BIOL 40C may be taken concurrently.
4 hours lecture.
General principles of pharmacology. Emphasis on drug-receptor interactions, second messenger systems, determinants of drug response, pharmacokinetics, bio transformation and excretion, pharmacogenetics, drug development and legal aspects of drug distribution. Application of pharmacological principles and concepts with emphasis on the various pharmacological classes of drugs in diverse patient populations. [Transferability: CSU]

BIOL 71  ADVANCED MOLECULAR BIOLOGY TECHNIQUES  2 Units
Prerequisite: Laboratory experience (high school and/or professional experience).
Advisory: BIOL 71 and BTEC 71 are interchangeable. High school biology, chemistry, algebra recommended. May be taken 2 times for credit.
4 hours lecture-laboratory.
Understanding, using and performing DNA sequencing and cloning techniques in a research and production setting. Includes applications of DNA and PCR product sequencing, historical and theoretical basis of conventional and automated DNA sequencing, experimental design of sequencing methods, oligonucleotide synthesis, construction of sequencing and expressions plasmids, and vectorology. Laboratory exercises will involve DNA and RNA manipulation using established protocols and computer assisted methods (bioinformatics). [Transferability: CSU]

BIOL 90A  BIOLOGY EXPERIENTIAL INTERNSHIP  4 Units
Prerequisite: Acceptance into the FHDA Internship program.
May be taken 6 times for credit.
12 hours laboratory.
Off-campus supervised experiential education of Biology students in laboratory or technology support environment. Opportunity for practical application of knowledge, skills and abilities acquired in Biology and related course work. Opportunity for additional hands-on training in all aspects of biologically laboratory related and/or technology support skills. Exposure to varied protocols, methodologies and practices in a professional research environment. [Transferability: CSU]

BIOL 90B  BIOLOGY EXTENDED EXPERIENTIAL INTERNSHIP  6 Units
Prerequisite: Acceptance into the FHDA Internship program.
May be taken 2 times for credit.
18 hours laboratory.
Off-campus supervised experiential education of Biology students in laboratory or technology support environment. Opportunity for practical application of knowledge, skills and abilities acquired in Biology and related course work. Opportunity for additional hands-on training in all aspects of biologically laboratory related and/or technology support skills. Exposure to varied protocols, methodologies and practices in a professional research environment. [Transferability: CSU]

BIOL 190X  DIRECTED STUDY  1 Unit
Non-degree applicable credit course.
Advisory: Pass/No Pass.
May be taken 6 times for credit.
.5 hour lecture and 3.5 hours laboratory.
Instructor permission required. For students who desire or require additional help in attaining comprehension and competency in learning skills.
BTEC 10 BIOTECHNOLOGY: GENERAL PRINCIPLES
5 Units
Advisory: Recent high school algebra or MATH 220; high school biology; eligibility for ENGL 1A or ESL 26.
4 hours lecture, 1 hour lecture-laboratory, 2 hours laboratory.
Introduction to the field of biotechnology. Topics covered include history, applications of biotechnology (in health care, agriculture, forensics, and the study of evolution), bioethics, the scientific method, lab safety and record-keeping, and instrumentation. Instruction in cell and molecular biology. May include field trips and/or presentations by industry speakers. Will allow for career exploration. [Transferability: CSU; UC approval is pending.]

BTEC 51A CELL BIOLOGY FOR BIOTECHNOLOGY
3 Units
3 hours lecture.
Introduction to cell biology. Topics to include molecular and cellular structure, cellular metabolism, cell division, DNA replication, transcription and translation. [Transferability: CSU]

BTEC 51AL CELL BIOLOGY LABORATORY FOR BIOTECHNOLOGY
5.5 Units
Prerequisite: High school algebra or MATH 220; eligibility for ENGL 110 or ESL 25; high school biology or BIOL 10; CHEM 30A and 30B or equivalent.
Corequisites: Completion of, or concurrent enrollment in, BTEC 51A or equivalent.
2 hours lecture, 10 hours laboratory.
Introduction to the biological laboratory techniques and methods used in cell biology. Topics to include solution preparation, use of pH meters, cellular fractionation by centrifugation, enzymology, spectrophotometry, chromatography, microscopy, and electrophoresis. Laboratory exercises will also reinforce scientific method, lab safety, importance of laboratory notebooks, applied problem solving, and fundamentals of instrumentation. [Transferability: CSU]

BTEC 52A MOLECULAR BIOLOGY FOR BIOTECHNOLOGY
3 Units
3 hours lecture.
Introduction to molecular biology. Topics to include organization of the genome, control of gene expression, oncogenes, molecular events of the cell cycle, theory and applications of recombinant DNA technology. [Transferability: CSU]

BTEC 52AL MOLECULAR BIOLOGY LABORATORY FOR BIOTECHNOLOGY
5.5 Units
Prerequisite: BTEC 51AL, or instructor permission.
Corequisites: Completion of, or concurrent enrollment in, BTEC 52A.
2 hours lecture, 10 hours laboratory.
Introduction to the biological laboratory techniques and methods used in molecular biology. Topics to include media preparation, agarose gel electrophoresis, restriction enzyme digestion, transformation of cells, purification and analysis of DNA, PCR, and Southern blotting. Laboratory exercises will also reinforce scientific method, lab safety, importance of laboratory notebooks, applied problem solving, and fundamentals of instrumentation. [Transferability: CSU]

BTEC 53A IMMUNOLOGY & VIROLOGY FOR BIOTECHNOLOGY
3 Units
Prerequisite: BTEC 52A.
3 hours lecture.
Introduction to immunology and virology. Topics to include the structure, function, and development of the immune system, regulation of the immune response, diseases of the immune system, vaccines, cancer, immunological techniques used in industry, viral structure, viral diseases, and the uses of viruses in biotechnology. [Transferability: CSU]

BTEC 53AL IMMUNOLOGY LABORATORY FOR BIOTECHNOLOGY
5.5 Units
Prerequisite: BTEC 52A.
Corequisite: Completion of, or concurrent enrollment in, BTEC 53A or equivalent.
2 hours lecture, 10 hours laboratory.
Introduction to the biological laboratory techniques and methods used in immunology. Topics to include the use of antibodies (ELISA, Western blot, immunofluorescence) in the lab, mammalian cell culture, and antibody production using hybridoma technology. Laboratory exercises will also reinforce scientific method, lab safety, importance of laboratory notebooks, applied problem solving, and fundamentals of instrumentation. [Transferability: CSU]

BTEC 54 BIOTECHNOLOGY EXTERNSHIP 4 Units
Prerequisite: BTEC 52A & 52AL.
Corequisite: BTEC 53A & 53AL.
24 hours clinic.
Externship for Spring Quarter Biotechnology Technician Training Program students, arranged at biotechnology, pharmaceutical, instrumentation companies and research facilities. Provides applied learning experience in several diverse employment situations including, but not limited to, the areas of production, research and development, manufacturing and quality control. [Transferability: CSU]
BTEC 65  NUCLEIC ACIDS ELECTROPHORETIC  1 Unit
SYSTEMS: BASIC LABORATORY TECHNIQUE
Prerequisite: Laboratory experience (high school and/or professional experience).
Advisory: BTEC 65 and BIOL 65 are interchangeable; high school biology, chemistry, and algebra.
May be taken 2 times for credit.
2 hours lecture-laboratory.
Understanding, using, and performing electrophoretic separations and transfers in a research or industrial setting. This is to include the molecular and physical basis of specific techniques, and their practical applications. Techniques covered will include gel electrophoresis, capillary electrophoresis and electrotransfers. The applications of these techniques for proteins, and small molecules, within research and industry will be presented. The instrumentation used for electrophoresis, capillary electrophoresis, and pulsed gel electrophoresis and practical experience with reagents and instrumentation will be emphasized. Students will follow established protocols, and demonstrate an understanding of supporting routine operations and standard protocols. [Transferability: CSU]

BTEC 66  HPLC: BASIC LABORATORY TECHNIQUE  2 Units
Prerequisite: High school biology, chemistry and algebra; laboratory experience.
Advisory: BTEC 66 and BIOL 66 are interchangeable.
May be taken 2 times for credit.
4 hours lecture-laboratory.
Understanding, using and performing HPLC in a research or industrial setting. Includes the theory and mechanisms of molecules and chemistry, the wide range of research, analytical and preparative uses, instrumentation used for HPLC, practical experience with reagents and instrumentation, following established protocols, calibrating and maintaining the instrumentation. [Transferability: CSU]

BTEC 67  IMMUNOLOGICAL ASSAYS  1 Unit
Prerequisite: Laboratory experience (high school, college and/or professional); high school chemistry, biology, algebra.
Advisory: BTEC 67 and BIOL 67 are interchangeable.
May be taken 2 times for credit.
2 hours lecture-laboratory.
Understanding and performing immunological assays. Includes the tools and mechanisms of molecules and chemistry, the wide range of research, analytical and preparative uses, instrumentation used for HPLC, practical experience with reagents and instrumentation, following established protocols, calibrating and maintaining the instrumentation. [Transferability: CSU]

BTEC 68  POLYMERASE CHAIN REACTION:  1 Unit
LABORATORY TECHNIQUE
Advisory: Laboratory experience (academic and/or industry); high school chemistry, biology, algebra.
May be taken 2 times for credit.
2 hours lecture-laboratory.
Fundamentals of the polymerase chain reaction (PCR) technique including theory, application, and instrumentation. Practical experience with the technique as used in research and industry settings following established protocols. Basic instruction in record-keeping, laboratory safety, and trouble-shooting. [Transferability: CSU]

BTEC 69  BASIC MAMMALIAN CELL CULTURE TECHNIQUES  3 Units
Prerequisite: Laboratory experience (high school, college and/or professional).
Advisory: High school chemistry, biology, algebra.
May be taken 2 times for credit.
6 hours lecture-laboratory.
Introduction to general mammalian cell culture techniques, including media preparation, sterile technique, freezing, thawing, and maintaining primary cell and cell lines. Theoretical considerations will include purpose and selection of media components, setting up and maintaining a sterile cell culture environment, and controlling contamination. Students will gain practical experience working in the laminar flow hood, counting cells, isolating cells from a primary source, and maintaining healthy adherent and suspension cells in culture. Emphasis will also be given to proper care and use of equipment used in a cell culture facility: laminar flow hoods, CO2 incubators, water baths, and the inverted microscope. [Transferability: CSU]

BTEC 71  ADVANCED MOLECULAR BIOLOGY TECHNIQUES  2 Units
Prerequisite: Laboratory experience (high school and/or professional experience).
Advisory: BTEC 71 and BIOL 71 are interchangeable; high school biology, chemistry, and algebra.
May be taken 2 times for credit.
4 hours lecture-laboratory.
Understanding, using and performing DNA sequencing and cloning techniques in a research and production setting. Includes applications of cDNA and PCR product sequencing, historical and theoretical basis of conventional and automated DNA sequencing, experimental design of sequencing methods, oligonucleotide synthesis, construction of sequencing and expressions plasmids, and vectorology. Laboratory exercises will involve DNA and RNA manipulation using established protocols and computer assisted methods (bioinformatics). [Transferability: CSU]

BTEC 73  HISTOTECHNOLOGY IN RESEARCH 1 Unit
Prerequisite: Laboratory experience (high school and/or professional experience).
Advisory: BTEC 73 and BIOL 73 are interchangeable; high school biology, chemistry, and algebra.
May be taken 2 times for credit.
2 hours lecture-laboratory.
Introduction to basic histotechnology techniques, including fixation, processing, embedding, sectioning, and staining. The course will stress hands-on work cutting thick and thin sections and individual staining techniques, including mixing all necessary solutions. The impact of histology as an aid in disease detection and how it is used as a tool in research will be explored. The course also addresses safety in the laboratory and ergonomic considerations along with an understanding of equipment maintenance. [Transferability: CSU]

BTEC 75  IMMUNOBIO TECHNOLOGY  2 Units
Advisory: high school chemistry, biology, algebra.
2 hours lecture.
Understanding immunobiology in relation to biotechnology. Introduction to molecular pathways associated with the human immune system. Inflammation, apoptosis, hematopoiesis, cellular activation, cellular genetics, signal transduction, and molecular classification in relation to current research in immunology. Introduction to flow cytometric analysis in both clinical and research settings. [Transferability: CSU]

BTEC 77  ENVIRONMENTAL BIOTECHNOLOGY  5 Units
Prerequisite: Laboratory experience (high school and/or professional experience); high school biology, chemistry, algebra.
Advisory: BTEC 68 & 71.
2 hours lecture, 2 hours lecture-laboratory, 6 hours laboratory.
Introduction to laboratory techniques and methods utilized in environmental research settings; including flow cytometry and data analysis, Restriction Fragment Length Polymorphisms (RFLP), Fluorescent In Situ Hybridizations (FISH), determination of coliform bacteria in water samples, production of biodiesel from algae, and Polymerase Chain Reaction (PCR) for biological assessment of mud and soil samples. Exercises will include design and characterization of species-specific fluorescent probes used in molecular biological techniques, flow cytometric analysis of marine samples, methods of environmental sampling, and agro-culturing. Emphasis will be placed on lab safety, following scientific method, applied problem solving, following standard protocols, and maintaining a professional quality laboratory notebook. [Transferability: CSU]
BUSINESS

Business & Social Sciences  (650) 949-7322  www.foothill.edu/bss/

BUSI 18  BUSINESS LAW I  5 Units
Advisory: Eligibility for ENGL 1A or ESLL 26.
5 hours lecture.
Introduction to law applicable to business. Social forces and the law; source of law; agencies for enforcement; and court systems and procedures. California law applicable to contracts, tort, negligence, agency, and the Uniform Commercial Code. Contemporary Legal Issues. [Transferability: UC/CSU]

BUSI 19  BUSINESS LAW II  4 Units
Advisory: BUSI 18.
4 hours lecture.
Law of sales, warranty and product liability, partnerships, corporations, personal property, and bailments. The Uniform Commercial Code as related to negotiable instruments and secured transactions, and creditor-debtor rights. [Transferability: UC/CSU]

BUSI 22  PRINCIPLES OF BUSINESS  4 Units
4 hours lecture.
Examination of the principles and functions of business and the objectives and operations of the corporate and small business managerial decision-making process; its relations to consumers and stakeholders and its global orientation. Includes focus on the economic, political, legal, social environments of business and corporate ethics and social responsibility. [Foothill GE: Social & Behavioral Sciences; Transferability: UC/CSU]

BUSI 34H  HONORS INSTITUTE SEMINAR  1 Unit
IN BUSINESS
Formerly: BUSI 34
Prerequisite: Honors Institute participant.
1 hour lecture.
A seminar in directed readings, discussions, and projects in business. Specific topics to be determined by the instructor. [Transferability: CSU; UC credit may be granted after transfer and upon portfolio review.]

BUSI 53  SURVEY OF INTERNATIONAL BUSINESS  4 Units
Advisory: Not open to students with credit in BIS 53.
4 hours lecture.
Introduction to the global commercial community, theory and practice. Exploration of trade and development with the Pacific Rim, Eastern/ Western Europe, Third World and developing nations. Major economic, social, political, cultural forces directing the competitive business environment. Examination of the full range of international commercial activities, marketing, logistics, research, risk analysis, and global corporate ethics and social responsibility. [Foothill GE: Social & Behavioral Sciences; Transferability: CSU]

BUSI 57  PRINCIPLES OF ADVERTISING  4 Units
Advisory: Not open to students with credit in ADVT 57.
4 hours lecture.
Introduction to the relationship between advertising and society, and consumer and business. Analysis of markets and direction of advertising campaigns toward them. Selection of media. Evaluation and proper use of the creative aspects of advertising. Actual creation of an advertising campaign and pro forma budget. [Transferability: CSU]

BUSI 58  SURVEY OF INTERNATIONAL MARKETING  4 Units
Advisory: Not open to students with credit in BIS 58.
4 hours lecture.
Contemporary developments of international marketing functions, concepts and business activities that determine global customer demand for products and services. [Transferability: CSU]

BUSI 59  PRINCIPLES OF MARKETING  4 Units
4 hours lecture.
Contemporary marketing developments and applications relative to business activities that determine customer demand for products and services. Focus on market planning strategy, determining the right product, price, distribution and promotion elements and evaluating the results of effective marketing decision-making from both a marketer’s and a consumer's perspective. [Transferability: CSU]

BUSI 61  INVESTMENT FUNDAMENTALS  3 Units
3 hours lecture.

BUSI 62  PRINCIPLES OF SALESMANSHIP  3 Units
3 hours lecture.
The principles and techniques of selling ideas, products, services. Focus on persuasive activities, buying behavior, communication, ethics. Combines an emphasis on the art of selling with providing effective customer service. [Transferability: CSU]

BUSI 64  SPECIAL PROJECTS IN BUSINESS  1 Unit
BUSI 64X  2 Units
BUSI 64Y  3 Units
BUSI 64Z  4 Units
Any combination of BUSI 64–64Z may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit. 1 hour lecture for each unit of credit. Advanced readings, research, and/or project in business. Specific topics determined in consultation with instructor. [Transferability: CSU]

BUSI 70  BUSINESS & PROFESSIONAL ETHICS  4 Units
Advisory: Eligibility for ENGL 1A or ESLL 26.
4 hours lecture.
Social and moral dilemmas encountered in business and professional lives. Exploration and analysis of the ongoing conflicts between personal value systems, expected codes of behavior, and standard operating procedure in the work place. Special attention given to an examination of the major philosophical schools of ethics and how their specific theories may be applied to the concrete business cases and contemporary management issues. [Transferability: CSU]

BUSI 90A  PRINCIPLES OF MANAGEMENT  4 Units
Advisory: Eligibility for ENGL 1A or ESLL 26.
4 hours lecture.
Introduction to the study of the principles and functions of business management as an important part of the social, political and economic environment. The following functional areas of management include: Planning and Organizing, Control and Monitoring, Strategy and Leadership, Legal and Ethical issues affecting business today. [Transferability: CSU]

BUSI 91L  INTRODUCTION TO BUSINESS INFORMATION PROCESSING  2 Units
Formerly: BUSI 10
3 hours lecture, 2 hours laboratory.
Knowledge and understanding of business uses of computer and information processing. Introduction to computer hardware and software and popular operating systems. Hands-on experience in the use of word processing software, spreadsheet software, presentation graphics software, database software and communications software. [Foothill GE: Lifelong Understanding; Transferability: CSU]

BUSI 92  FINANCIAL PLANNING PRACTICES  4 Units
4 hours lecture.
Examination of financial and retirement planning, mutual funds, real estate, bonds, cash equivalents, gold, stock, tax-free income, sources of investment help, advisory services. [Transferability: CSU]
BUSI 95 ENTREPRENEURSHIP - SMALL BUSINESS MANAGEMENT 4 Units
4 hours lecture.
Creating, managing and profiting from a small business. For potential or present entrepreneurs. Emphasis on organization and operation of a small business including problems of raising capital, establishing an effective marketing plan, and directing and motivating employees. [Transferability: CSU]

BUSI 95E SMALL BUSINESS EXPORT & IMPORT 3 Units
Advisory: Not open to students with credit in BIS 95E.
3 hours lecture.
Challenges and opportunities of world trade through small business exporting and importing. The basic mechanics, market analysis, pricing, financing, marketing, insurance, transportation and distribution of exports/imports. Expert assistance and resources. [Transferability: CSU]

BUSI 97 MANAGEMENT SEMINAR .5 Unit
BUSI 97X 1 Unit
BUSI 97Y 1.5 Units
BUSI 97Z 3 Units
Advisory: Pass/No Pass.
Any combination of BUSI 97–97Z, may be taken 6 times for credit; however, no single course may be taken more than 6 times for credit.
1 hour lecture for each unit of credit.
In-depth exposure to specific management theories and processes and the various leaders in the field. [Transferability: CSU]

BUSI 99A SUPERVISED BUSINESS INTERNSHIPS 1 Unit
May be taken 6 times for credit.
3 hours laboratory.
The Internship Program is an educational experience that gives students the opportunity to apply classroom learning to the business world. Working part-time/full-time, students receive hands-on experience where they improve their knowledge and skills in a workplace environment. Legal right to work in the United States is required. [Transferability: CSU]

BUSI 99B SUPERVISED BUSINESS INTERNSHIPS 2 Units
May be taken 6 times for credit.
6 hours laboratory.
The Internship Program is an educational experience that gives students the opportunity to apply classroom learning to the business world. Working part-time/full-time, students receive hands-on experience where they improve their knowledge and skills in a workplace environment. Legal right to work in the United States is required. [Transferability: CSU]

BUSI 99C SUPERVISED BUSINESS INTERNSHIPS 3 Units
May be taken 6 times for credit.
9 hours laboratory.
The Internship Program is an educational experience that gives students the opportunity to apply classroom learning to the business world. Working part-time/full-time, students receive hands-on experience where they improve their knowledge and skills in a workplace environment. Legal right to work in the United States is required. [Transferability: CSU]

BUSI 120 DISPUTE RESOLUTION & MEDIATION 3.5 Units
3.5 hours lecture.
Principles and process of mediation with role-play practice in community, business and workplace cases. Evolution and comparison of alternative dispute resolution processes. Skill development for effective communication, relationship building, interest-based negotiation and problem-solving.

BUSI 131B HOW TO START A HOME-BASED BUSINESS .5 Unit
.5 hour lecture.
Exploration of unique needs for small businesses started and operated from the home. Topics covered include information about licenses, taxes, resolution of lifestyle and image.

BUSI 133A STARTING A SMALL BUSINESS 1 Unit
Advisory: Pass/No Pass.
1 hour lecture.
Introductory class providing basics necessary for start-up of a small business including local, state, and federal regulatory requirements; pros and cons of various options for structuring business; selecting a business location; simple structuring of marketing and business plans; developing and understanding a feasibility study; and basics of managing and operating a small business.

BUSI 133E SMALL BUSINESS MARKETING, RESEARCH & PLANNING 1 Unit
Advisory: Pass/No Pass.
1 hour lecture.
Explore the basics necessary to develop a successful marketing strategy and business plan. Includes analysis of customer, competition, pricing, marketing strategies, promotional and business plans.

BUSINESS OFFICE TECHNOLOGY

Computers, Technology & Information Systems (650) 949-7236 www.foothill.edu/ctis/

B T 51A PROFESSIONAL KEYBOARDING I (BEGINNING) 1 Unit
Advisory: Students who have had previous training in typewriting or keyboarding and can keyboard at least 30 words a minute should enroll in B T 51B.
2 hours lecture-laboratory.
Develop and master correct keyboarding skills and techniques on the microcomputer using the touch system. [Transferability: CSU]

B T 51B PROFESSIONAL KEYBOARDING II (BASIC FORMATTING) 1 Unit
Prerequisite: B T 51A or ability to typewrite/keyboard straight copy at a minimum rate of 30 wpm for two minutes with two or fewer errors.
2 hours lecture-laboratory.
Continued development of keyboarding competencies; emphasis on increasing speed, improving accuracy, learning word processing functions, developing formatting skills, applying communication skills, and learning document production skills. [Transferability: CSU]

B T 51C PROOFREADING I 1 Unit
2 hours lecture-laboratory.
Development of proofreading and editing skills in preparation for office occupations. Hands-on experience with proofreading software. [Transferability: CSU]

B T 59 INTEGRATED BUSINESS COMMUNICATION 5 Units
Formerly: B T 59A & B T 59B
Advisory: Satisfactory completion of ENGL 110 or ESLL 25, or English Placement Test level of ENGL 1A or ESLL 26; not open to students with credit in B T 59A and 59B.
4 hours lecture, 4 hours terminal time.
Integrates the review and refinement of basic English communication in the business setting. Includes business focused content, practice in grammar, punctuation, word usage skills and communication techniques as well as research and techniques for larger written documents and presentations. Skills developed will be practiced using business computer applications in Word, PowerPoint and Excel. [Transferability: CSU]

B T 93U B T EXPERIENTIAL INTERNSHIP 3 Units
B T 93V 4 Units
B T 93 W 6 Units
May be taken 6 times for credit.
3 hours laboratory for each unit of credit.
Off-campus supervised experiential education of BT students in office administration or technology support. Opportunity for practical application of knowledge, skills and abilities acquired in B T and related course work. Opportunity for additional hands-on training in all aspects

All courses on this page are Title 5 degree applicable credit courses unless otherwise noted.
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of office administration and/or technology support. Exposure to varied protocols, methodologies and practices in a professional working environment. [Transferability: CSU]

**CAREER LIFE PLANNING**

Counseling & Student Services (650) 949-7296  
www.foothill.edu/transfer/counseling.html

**CRLP 55**  
LIFELONG LEARNING STRATEGIES  3 Units  
3 hours lecture  
Interactive, applied course to teach learning strategies and skills necessary to successfully reach educational, career and personal objectives. Topics include time management, memory techniques, study reading, note taking, test preparation, other learning strategies and the techniques to apply them in college and throughout life. [Foothill GE: Lifelong Understanding; Transferability: CSU]

**CRLP 70**  
SELF-ASSESSMENT  3 Units  
Advisory: Not open to students with credit in CRLP 76 or 76A.  
1 hour lecture, 1 hour laboratory.  
Exploration of individual skills, interests, values, and personality style as they relate to career choice. Includes testing, values clarification, skills identification, lifestyle assessment, decision making and goal-setting techniques. [Foothill GE: Lifelong Understanding; Transferability: CSU]

**CRLP 71**  
EXPLORING CAREER FIELDS  1 Unit  
Advisory: Pass/No Pass; may not be concurrently enrolled in CRLP 70.  
May be taken 3 times for credit.  
1 hour lecture.  
Explore career options compatible with student’s strengths and interests. Using resources on the campus as well as on the Internet and in communities to investigate specific career choices, researching job descriptions, desired employee characteristics, training/education requirements, salary ranges and employment trends. [Transferability: CSU]

**CRLP 73**  
EFFECTIVE RESUME WRITING  1 Unit  
Advisory: Pass/No Pass.  
May be taken 3 times for credit.  
1 hour lecture.  
Development of successful resume writing skills including understanding of the hidden job market, types of resumes and tips that will create resumes that result in interviews. [Transferability: CSU]

**CRLP 74**  
SUCCESSFUL INTERVIEWING TECHNIQUES  1 Unit  
Advisory: Pass/No Pass.  
May be taken 3 times for credit.  
1 hour lecture.  
Development of successful interviewing skills includes techniques for pre-interview preparation, dynamics of an interview, salary negotiations and follow-up. [Transferability: CSU]

**CERTIFIED ELECTRICIAN**

Computers, Technology & Information Systems (650) 949-7236

**C E 101A**  
ELECTRICIAN TRAINING  3 Units  
CERTIFICATION REVIEW: NEC  
Prerequisite: Eligibility for State of California Electrician Certification as an Electrician in one of the following categories: General, Residential, Fire/Life Safety Technician, Voice Data Video Technician, or Nonresidential Lighting Technician.  
May be taken 6 times for credit.  
3 hours lecture.  
A content review course designed to prepare for NEC component of the State Electrician Certification Exam. Study of the National Electrical Code (NEC), its purpose, and application of information to the job. Advice and practice on how to prepare for and take examinations.

**C E 101B**  
ELECTRICIAN TRAINING  1.5 Units  
CERTIFICATION REVIEW: TEST INSTRUMENTS  
Prerequisite: Eligibility and registration as an Electrician Trainee for purpose of attaining a State of California Electrician Certification in one of the following categories: General, Residential, Fire/Life Safety Technician, Voice Data Video Technician, or Nonresidential Lighting Technician.  
May be taken 6 times for credit.  
1 hour lecture, 1 hour laboratory.  
A content review course designed to prepare for the test instrument portion of the State Electrician Certification Exam. Instruction on usage of test equipment. Advice and practice on how to prepare for and take examinations.

**C E 101C**  
ELECTRICIAN TRAINING  1.5 Units  
CERTIFICATION REVIEW: AC/DC GENERATORS  
Prerequisite: Eligibility for State of California Electrician Certification as an Electrician in one of the following categories: General, Residential, Fire/Life Safety Technician, Voice Data Video Technician, or Nonresidential Lighting Technician.  
May be taken 6 times for credit.  
1 hour lecture, 1 hour laboratory.  
A content review course designed to prepare for DC/AC generator elements of the State Electrician Certification Exam. Theory, function, and design of DC and AC generators and basic fundamentals of using blueprints. Advice and practice on how to prepare for and take examinations.

**C E 101D**  
ELECTRICIAN TRAINING  1.5 Units  
CERTIFICATION REVIEW: PIPE BENDING  
Prerequisite: Eligibility for State of California Electrician Certification as an Electrician in one of the following categories: General, Residential, Fire/Life Safety Technician, Voice Data Video Technician, or Nonresidential Lighting Technician.  
May be taken 6 times for credit.  
1 hour lecture, 1 hour laboratory.  
A content review course designed to prepare for Pipe Bending elements of the State Electrician Certification Exam. Instruction on usage of pipe bending tools. Advice and practice on how to prepare for and take examinations.

**C E 101E**  
ELECTRICIAN TRAINING  1.5 Units  
CERTIFICATION REVIEW: GROUNDING & BONDING  
Prerequisite: Eligibility for State of California Electrician Certification as an Electrician in one of the following categories: General, Residential, Fire/Life Safety Technician, Voice Data Video Technician, or Nonresidential Lighting Technician.  
May be taken 6 times for credit.  
1 hour lecture, 1 hour laboratory.  
A content review course designed to prepare for grounding and bonding elements of the State Electrician Certification Exam. Provides the what, where, and why effective grounding is needed, and how grounding can be effective in the overall electrical installation. Advice and practice on how to prepare for and take examinations.

**C E 101F**  
ELECTRICIAN TRAINING  2.5 Units  
CERTIFICATION REVIEW: BLUEPRINT READING  
Prerequisite: Eligibility and registration as an Electrician Trainee for purpose of attaining a State of California Electrician Certification in one of the following categories: General, Residential, Fire/Life Safety Technician, Voice Data Video Technician, or Nonresidential Lighting Technician.  
May be taken 6 times for credit.  
2.5 hour lecture.  
A content review course designed to prepare for all elements of the State Electrician Certification Exam. Theory, function, and basic fundamentals of using blueprints. Advice and practice on how to prepare for and take examinations.
CHEM 1B  GENERAL CHEMISTRY  5 Units
Prerequisite: CHEM 1A.
3 hours lecture, 2 hours lecture-laboratory, 4 hours laboratory, 2 hours TBA.
A sophomore level course describing the chemistry of organic (carbon containing) compounds. Emphasis on structure-reactivity relationships, mechanisms of functional group transformations, and methods of synthesis, purification, isolation and characterization of organic target molecules. For biological science, chemistry, chemical engineering, pre-professional students in dentistry, medicine, pharmacy, veterinary medicine and other interested students who have mastered the prerequisites. [Transferability: UC/CSU]

CHEM 12A  ORGANIC CHEMISTRY  6 Units
Prerequisite: CHEM 1C.
4 hours lecture, 2 hours lecture-laboratory, 4 hours laboratory, 2 hours TBA.
A continuation of a sophomore level course describing the reactivity of organic (carbon containing) compounds. Emphasis on structure-reactivity relationships, mechanisms of functional group transformations, and methods of synthesis, purification, isolation and characterization of organic target molecules. For biological science, chemistry, chemical engineering, pre-professional students in dentistry, medicine, pharmacy, veterinary medicine and other interested students who have mastered the prerequisites. [Transferability: UC/CSU]

CHEM 12B  ORGANIC CHEMISTRY  6 Units
Prerequisite: CHEM 12A.
4 hours lecture, 2 hours lecture-laboratory, 4 hours laboratory, 2 hours TBA.
A continuation of a cumulative sophomore-level course describing the reactivity of organic (carbon containing) compounds including biomolecules such as proteins and carbohydrates. Continued emphasis on structure-reactivity relationships, mechanisms of functional group transformations, and methods of synthesis, purification, isolation and characterization of target organic molecules. For biological science, chemistry, chemical engineering, pre-professional students in dentistry, medicine, pharmacy, veterinary medicine and other interested students who have mastered the prerequisites. [Transferability: UC/CSU]

CHEM 12C  ORGANIC CHEMISTRY  6 Units
Prerequisite: CHEM 12B.
4 hours lecture, 2 hours lecture-laboratory, 4 hours laboratory, 2 hours TBA.
A continuation of a cumulative sophomore-level course describing the reactivity of organic (carbon containing) compounds including biomolecules such as proteins, carbohydrates, lipids, and nucleic acids. Continued emphasis on structure-reactivity relationships, mechanisms of functional group transformations, and methods of synthesis, purification, isolation and characterization of target organic molecules. For biological science, chemistry, chemical engineering, pre-professional students in dentistry, medicine, pharmacy, veterinary medicine and other interested students who have mastered the prerequisites. [Transferability: UC/CSU]
CHEM 30B SURVEY OF ORGANIC & BIOCHEMISTRY 5 Units
Prerequisite: CHEM 30A.
4 hours lecture, 1 hour lecture-laboratory, 2 hours laboratory, 1 hour TBA.
This is an introductory course covering basic principles of organic chemistry and biological chemistry. Topics include organic chemistry nomenclature, functional groups, and an introduction to structure and properties of carbohydrates, lipids, nucleic acids, proteins and enzymes. An overview of metabolism will also be given. This chemistry course is primarily for students entering the allied health field including: nursing, dental hygiene, biotechnology, primary care associate, radiation therapy technology, radiological technology, respiratory therapy, and pharmaceutical technology. [Foothill GE: Natural Sciences; Transferability: UC/CSU]

CHEM 34H HONORS INSTITUTE SEMINAR IN CHEMISTRY 1 Unit
Prerequisite: Honors Institute participant.
Advisory: Not open to students with credit in CHEM 34.
1 hour lecture.
A seminar in directed readings, discussions and projects in chemistry. Specific topics to be determined by the instructor. [Transferability: CSU; UC credit may be granted after transfer and upon portfolio review.]

CHEM 36 SPECIAL PROJECTS IN CHEMISTRY 1 Unit
CHEM 36X 2 Units
CHEM 36Y 3 Units
Prerequisite: Four quarters of college-level chemistry.
Any combination of CHEM 36–36Y may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit.
3 hours laboratory.
Advanced laboratory procedures and practices; the use of instrumentation and analytical chemistry; inorganic and organic analyses and syntheses; physical measurements. Projects are assigned on consultation with instructor, outside reading required. [Transferability: CSU]

CHEM 70 STUDY SKILLS & PROBLEM SOLVING STRATEGIES FOR CHEM 1A 2 Units
Corequisite: CHEM 1A.
May be taken 2 times for credit.
2 hours lecture.
This course focuses on two objectives: (1) Development of study skills and strategies needed to succeed in a college level science course including; listening and note taking skills, time management, use of text books, management of effective study sessions and study groups, managing lecture and laboratory work, analyzing figures and graphs, test preparation and test taking strategies. (2) Development of analytical reasoning strategies, critical thinking skills and problem-solving abilities with a focus on topics the student must master in CHEM 1A in order to succeed in subsequent courses, CHEM 1B and 1C. [Transferability: CSU]

CHEM 100 CHEMISTRY STUDENT ASSISTANCE .5 Unit
CHEM 100X 1 Unit
CHEM 100Y 2 Units
Advisory: Pass/No Pass
Corequisites: Concurrent enrollment in any Chemistry course.
Any combination of CHEM 100–100Y may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit.
1.5 hours laboratory for each .5 unit of credit.
Individual study and/or guidance provided for students who desire or require additional assistance in any of the chemistry courses.

All courses on this page are Title 5 degree applicable credit courses unless otherwise noted.
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CHLD 56 OBSERVATION TECHNIQUES 4 Units
Advisory: CHLD 56N, 55 or PSYC 14.
3 hours lecture, 3 hours laboratory.
Provides training in observational techniques in natural settings using a range of tools. Students will learn to make formal observations that will guide their development of curriculum, create a child's portfolio and prepare for teacher-parent conferences. [Transferability: CSU]

CHLD 56N INTRODUCTION TO CHILD DEVELOPMENT 4 Units
4 hours lecture.
Introduction to the field of child development. Curriculum planning and supervisory activities for children in early childhood programs. Focus on developmental issues in the teaching-learning environment, including guidelines for interaction and teaching techniques. [Transferability: CSU]

CHLD 59 WORKING WITH SCHOOL-AGE CHILDREN: PRINCIPLES & PRACTICES 3 Units
3 hours lecture
Review of developmental characteristics of children ages five to twelve years. Role of adult in high quality child care and behavior management. Planning and implementing developmentally appropriate curriculum. Creating environment-program standards and criteria for evaluation. Specifically designed for those who work or desire to work with school-age children in a variety of after-school, recreation and summer day camps. [Transferability: CSU]

CHLD 63N ARTISTIC & CREATIVE DEVELOPMENT 3 Units
2.5 hours lecture, 1 hour laboratory.
Artistic awareness and creativity in young children. Using a variety of media to promote children's sensitivity to, and use of, various tactile arts, visual arts and performing arts. Role of the parent and teacher in encouraging children's explorations. [Transferability: CSU]

CHLD 64N BUILDING RELATIONSHIPS BETWEEN PARENTS & CHILDREN 1 Unit
Advisory: Pass/No Pass.
May be taken 6 times for credit.
1 hour lecture.
Focus on helping parents build a loving and responsible relationship with their children, and develop skills to handle conflicts creatively. Topics include helping children deal with their feelings, expressing anger without being hurtful, engaging children's cooperation without nagging, setting firm limits, and negotiating win-win solutions. [Transferability: CSU]

CHLD 68 TOPICS/PROJECTS IN 1 Unit
CHLD 68X CHILD DEVELOPMENT 2 Units
CHLD 68Y 3 Units
CHLD 68Z 4 Units
Any combination of CHLD 68–68Z may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit.
1 hour lecture for each unit of credit.
Topical introductory projects in any Early Child Development academic discipline of program segment area. Specific course and/or special projects vary from quarter to quarter depending upon selected student, population, methodology and faculty member. [Transferability: CSU]

CHLD 71 PLANNING CREATIVE ART ACTIVITIES FOR CHILDREN 1 Unit
2 hours lecture-laboratory.
Introduction to a variety of creative art activities for the preschool child. Tactile arts including paint, clay, chalk, playdough, collage and crayons. [Transferability: CSU]

CHLD 72 LANGUAGE DEVELOPMENT 3 Units
3 hours lecture.
Introduction to early language development focusing on cognition, language development and language within the social context. Theoretical information and practical applications with children including music, movement, storytelling, books, chants, songs and fingerplays. [Transferability: CSU]

CHLD 73 MUSIC & MOVEMENT IN THE EARLY YEARS 3 Units
2 hours lecture, 3 hours laboratory.
Music and movement activities and experiences that facilitate non-musician teachers to express ideas and implement expanded curriculum ideas for infants/toddlers, preschoolers and school aged children. Elements of presentation and basic concepts of teaching music and movement to promote the growth and development of the young children. [Transferability: CSU]

CHLD 74 SCIENCE & NATURE 1 Unit
1 hour lecture.
Science for children: suggestions for activities involving plants, animals, and the physical properties of the environment; emphasis on making science part of the everyday experience. [Transferability: CSU]

CHLD 79 CARING FOR INFANTS & TODDLERS IN GROUPS 3 Units
3 hours lecture.
Overview of infant and toddler development. The role adults play in responsive infant and toddler caregiving and the essential elements of a quality infant/toddler environment. Individualized routines as appropriate curriculum. Forming partnerships with parents. [Transferability: CSU]

CHLD 82 PLANNING CREATIVE DRAMATICS 1 Unit
1 hour lecture.
An introduction to creative dramatics for the child; dramatic play, puppetry, role playing, acting out stories; how to implement creative dramatics. The emergence of creativity, imagining, and empathizing with others. Techniques for promoting children’s sensitivity to, and use of, various dramatic art forms. The role of the parent and teacher in facilitating children's explorations. [Transferability: CSU]

CHLD 85 LITERACY & LITERATURE IN PRESCHOOL EDUCATION 3 Units
3 hours lecture.
Introduction to literature for children from birth through age 5. Emphasis on selection, evaluation and classroom use of literature to support literacy in children. [Transferability: CSU]

CHLD 86A MENTORING & PROFESSIONAL DEVELOPMENT OF EARLY CHILDHOOD PROFESSIONALS 4 Units
Advisory: CHLD 55, 88 and a minimum of one other 3-unit course in Child Development.
4 hours lecture
Focus on preparing teachers for the role of mentoring student teachers, assistant teachers, parents, and volunteers in early childhood settings. Emphasis is on the role of teachers supervising other adults while simultaneously addressing the classroom needs of the children and parents in the program. Development will focus on the professional self, portfolio development, documentation of the teachers work with children. [Transferability: CSU]

CHLD 86B PRACTICUM STUDENT TEACHING IN AN EARLY CHILDHOOD PROGRAM 5 Units
Advisory: CHLD 55, 88 and a minimum of one other 3-unit course in Child Development.
2 hours lecture, 10 hours laboratory.
Focus on preparing students for work in an early childhood program. Integrating and applying knowledge and understanding of the process of child growth and development to group settings with young children. Incorporates the role of the teacher as it relates to observing, interacting, with children and families, planning and implementing developmentally appropriate curriculum, and participating in staff meetings. [Transferability: CSU]
CHLD 88  CHILD, FAMILY & COMMUNITY  4 Units
4 hours lecture.
Child’s relationship to the family and community. Interaction of family
members and the community as they cope with problems that affect
the child. How family life practices and attitudes differ among cultures.
Major child development theories and how they relate to cross-cultural
perspectives of the child in society. [Transferability: CSU]

CHLD 88B  POSITIVE BEHAVIOR MANAGEMENT  2 Units
2 hour lecture.
Introduction to a range of positive guidance techniques that can be used
with infants, toddlers, pre-school, and school-aged children. Emphasis on
selection of appropriate strategies to meet the needs of each individual
child. [Transferability: CSU]

CHLD 89  CURRICULUM FOR EARLY CARE &
EDUCATION PROGRAMS  3 Units
Advisory: CHLD 55.
3 hours lecture.
An overview of knowledge and skills related to providing appropriate
curriculum and environments for young children from birth to six
years. The course will include the essential elements of developing a
curriculum framework emphasizing the roles of both the child and adult.
[Transferability: CSU]

CHLD 90B  ADMINISTRATION & SUPERVISION:  4 Units
DESIGNING & STARTING CHILD
CARE FACILITIES
Advisory: Completion of 9 units of child development courses.
4 hours lecture.
Components of a quality child care center including types of programs,
facility design and set up, licensing regulations, budgeting processes,
personnel and policy procedures, food, health and safety issues, and
working with advisory boards. [Transferability: CSU]

CHLD 90C  ADMINISTRATION & SUPERVISION:  4 Units
PROGRAM OPERATION
Advisory: Completion of 9 units of child development courses.
4 hours lecture.
Administrative responsibilities including budgeting processes,
program philosophy, program assessment, marketing and enrollment
management, parent and community involvement, ADA facility
requirements, and equipment selection. [Transferability: CSU]

CHLD 91  ADMINISTRATION & SUPERVISION:  4 Units
ADULT SUPERVISION
Advisory: Completion of 9 units of child development courses.
4 hours lecture.
Methods and principles of supervising adults in early childhood
classrooms. Emphasis on the role of experienced classroom teachers who
function as support and mentors to new teachers. Fulfills requirement
of Child Development Permit Matrix and Mentor Teacher course.
[Transferability: CSU]

CHLD 95  HEALTH, SAFETY & NUTRITION IN
CHILDREN’S PROGRAMS  3 Units
3 hours lecture.
For child care providers engaged in-home or classroom care of young
children. Studies will include how to improve health and safety
procedures, signs and symptoms of infectious diseases, knowledge
of sanitary food handling, child nutrition and physical fitness, signs
and symptoms of child abuse, and emergency preparedness and
evacuation. Student earns a first aid with CPR training certificate. Course
meets Title 22, Section 101215.1 California State Licensing requirement.
[Transferability: CSU]
viewpoints and different values of diverse cultures. Development of listening and speaking skills by exploring various forms of authentic materials, such as current news media, formal and informal conversations. Understanding ambiguities, vagaries, and value inherent in the target language. [Foothill GE: Humanities; Transferability: UC/CSU]

CHIN 13B INTERMEDIATE CONVERSATION II 4 Units
Prerequisite: CHIN 13A.
May be taken 6 times for credit.
4 hours lecture.
Continuation of CHIN 13A. Speaking and listening experience in an environment of increasingly challenging language situation in culturally appropriate ways. Special emphasis on rapidity of correct perception and speaking, acquaintance with a variety of native dialects, and familiarity with oral idioms and grammar as they differ from more formal written and literary uses. Development of critical thinking skills by comparing different viewpoints and different values of diverse cultures. Development of listening and speaking skills by exploring various forms of authentic materials, such as current news media, political speech, and debates. Stating and supporting opinions on various topics. Understanding ambiguities, vagaries, and value inherent in the target language. [Foothill GE: Humanities; Transferability: UC/CSU]

CHIN 14A ADVANCED CONVERSATION I 4 Units
Prerequisite: CHIN 13B.
May be taken 6 times for credit.
4 hours lecture.
Development of fluency in the oral/aural language, and cultural skills required in socio-linguistic functions, i.e., honorifics, in-group/out-group, male/female, and formal/informal expressions. Development of critical thinking skills by comparing different viewpoints and different values of diverse cultures. Development of listening and speaking skills by exploring various forms of authentic materials, such as current news media, political speech, debates, and drama. Stating and supporting opinions on various topics, including abstract concepts. Understanding and appreciating ambiguities, vagaries, and value inherent in the target language. [Foothill GE: Humanities; Transferability: UC/CSU]

CHIN 14B ADVANCED CONVERSATION II 4 Units
Prerequisite: CHIN 14A.
May be taken 6 times for credit.
4 hours lecture.
Continuation of CHIN 14A. Development of advanced level of oral/aural fluency in the language, and cultural skills required in socio-linguistic functions. Stating and supporting opinions on complex abstract topics. Analyzing and hypothesizing. Understanding cultural differences, persuading, negotiating, and giving speech in formal settings. Development of critical thinking skills by comparing different viewpoints and different values of diverse cultures. Development of listening and speaking skills by exploring various forms of authentic materials, such as current news media, debates on various issues, and drama. Stating and supporting opinions on various topics, including abstract concepts. Understanding and appreciating ambiguities, vagaries, and value inherent in the target language. [Foothill GE: Humanities; Transferability: UC/CSU]

CHIN 25A ADVANCED COMPOSITION & READING I 4 Units
Prerequisite: CHIN 6.
4 hours lecture.
Introduction to authentic Chinese written materials intended for native Chinese readers, such as magazine articles, editorials, literature, and literature. Reading and analysis of texts as exponents of the culture and history. Compositions and advanced grammar. Development of critical thinking skills by comparing different viewpoints and different values of diverse cultures. Development of reading and writing skills by exploring various forms of literary and other forms of creative thoughts. Understanding ambiguities, vagaries, and value inherent in the target language. [Foothill GE: Humanities; Transferability: UC/CSU]

CHIN 25B ADVANCED COMPOSITION & READING II 4 Units
Prerequisite: CHIN 25A.
4 hours lecture.
Continuation of CHIN 25A. Reading and analysis of authentic Chinese written materials intended for native Chinese readers, as exponents of the culture and history. Development of further skills in reading authentic materials, including magazines, newspaper articles, editorials, literature, and abstract theories. Practice in writing expository essays. Development of critical thinking skills by comparing different viewpoints and different values of diverse cultures. Development of reading and writing skills by exploring various forms of literary and other forms of creative thoughts. Understanding and appreciating the ambiguities, vagaries, and value inherent in the target language. [Foothill GE: Humanities; Transferability: UC/CSU]

CHIN 36 SPECIAL PROJECTS IN CHINESE 1 Unit
CHIN 36X 2 Units
CHIN 36Y 3 Units
CHIN 36Z 4 Units
Prerequisite: CHIN 6.
Any combination of CHIN 36–36Z may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit. 1 hour lecture for each unit of credit.
A study oriented toward spoken or written practice or both in Chinese. This may entail research and critical techniques adapted to individual writing and/or oral presentation projects under instructor supervision. Specific topics vary from quarter to quarter. This course cannot be substituted for departmental requirements. [Transferability: UC/CSU]

CHIN 103 CHINESE BUSINESS CULTURE & ETIQUETTE 1 Unit
Non-degree applicable credit course.
May be taken 6 times for credit.
1 hour lecture.
Introduction to basic Chinese business etiquette and culture. Basic business greetings and interactions. Culturally appropriate behavior and body language. The role of gift giving and socializing in a business setting. The decision-making process in Chinese corporate culture.
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>COMM 1BH</td>
<td>HONORS ARGUMENTATION &amp; PERSUASION</td>
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<td>Prerequisite: Honors Institute participant.</td>
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<td>Advisory: Eligibility for ENGL 1A or ESLL 26, or equivalent; not open to students with credit in COMM 1B or SPCH 1B.</td>
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<td>5 hours lecture</td>
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<td>The study and practice of argumentation and persuasion. Analysis of rhetorical theory and application of methods of effective persuasion. Knowledge of the structure and format of various types of disputation and participation in in-class speech activities. The honors section provides accelerated students with academic enrichment emphasizing rhetorical analysis and critical thinking. Expanded opportunities include, but are not limited to, examination of political speech in historical context, student-initiated and student-led discussion, self-reflection paper, and creative group project.</td>
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<td>COMM 2</td>
<td>INTERPERSONAL COMMUNICATION</td>
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<td>Formerly: SPCH 2</td>
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<td>Advisory: Eligibility for ENGL 1A or ESLL 26, or equivalent; not open to students with credit in SPCH 2.</td>
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<td>5 hours lecture</td>
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<td></td>
<td>Experience in interpersonal communication, including discussion, the perception process, critical thinking and reasoning, verbal and nonverbal modes of communication, intercultural communication, and the effect of communication on individuals and society. Faculty and peer feedback on critically evaluated exercises.</td>
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<td>[Foothill GE: Communication &amp; Analytical Thinking, Lifelong; Transferability: UC/CSU]</td>
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<tr>
<td>COMM 3</td>
<td>FUNDAMENTALS OF ORAL COMMUNICATION</td>
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<td>Formerly: SPCH 3</td>
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<td>Advisory: Eligibility for ENGL 1A or ESLL 26, or equivalent; not open to students with credit in SPCH 3.</td>
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<td>5 hours lecture</td>
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<td></td>
<td>Introduction to the nature of communication in interpersonal, intercultural, small group and public speaking contexts. Application of basic theories through critically evaluated exercises and oral presentations.</td>
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<td>[Foothill GE: Communication &amp; Analytical Thinking; Transferability: UC/CSU]</td>
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<tr>
<td>COMM 4</td>
<td>GROUP DISCUSSION</td>
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<td>Formerly: SPCH 4</td>
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<td>Advisory: Eligibility for ENGL 1A or ESLL 26, or equivalent; not open to students with credit in SPCH 4.</td>
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<td>5 hours lecture</td>
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<td>Analysis of the principles of group interaction and decision making. Participation in discussion groups designed to share information, solve problems and reach consensus.</td>
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<td>[Foothill GE: Communication &amp; Analytical Thinking; Transferability: UC/CSU]</td>
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<td>COMM 10</td>
<td>GENDER, COMMUNICATION</td>
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<td>Formerly: SPCH 10</td>
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<td>Advisory: Eligibility for ENGL 1A or ESLL 26, or equivalent; not open to students with credit in SPCH 10.</td>
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<td>5 hours lecture</td>
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<td>A comparative and integrative study of the interactive relationship between communication, gender, and culture in American society. Emphasis on the multiple ways communication in interpersonal relationships, educational institutions, organizations, media, and society in general creates and perpetuates gender roles. Analysis of gendered histories, traditions, and practices which normalize certain expectations, values, meanings, and patterns of behavior across cultural/racial lines (Native Americans, Latino Americans, European Americans, African Americans, Asian Americans, Gays, Lesbians, Bi-sexual, and Transgendered peoples).</td>
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<td>[Foothill GE: United States Cultures &amp; Communities, Lifelong; Transferability: UC/CSU]</td>
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<td>COMM 12</td>
<td>INTERCULTURAL COMMUNICATION</td>
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<td>Formerly: SPCH 12</td>
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<td>Advisory: Eligibility for ENGL 1A or ESLL 26, or equivalent; not open to students with credit in SPCH 12.</td>
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<td>A comparative and integrative study of intercultural communication in American Society. Analysis of cultural histories, cultural concepts, language, ethnic perspectives, perceptions, symbols and roles as they facilitate or hinder effective verbal and nonverbal interaction across cultural lines. Examination of cultural identities which influence thinking and behavior, such as race, class, gender, ethnicity, sexual orientation, nationality, age, appearance, and physical ability.</td>
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<td>[Foothill GE: United States Cultures &amp; Communities, Comm, Lifelong; Transferability: UC/CSU]</td>
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<td>COMM 24</td>
<td>READERS’ THEATRE</td>
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<td>Formerly: SPCH 24</td>
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<td>Advisory: Not open to students with credit in DRAM 24, SPCH 24 or THTR 24.</td>
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<td>May be taken 2 times for credit.</td>
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<td>5 hours lecture</td>
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<td>Selection and practice of individual and group readings from various types of literature, employing a range of vocal skills and presented in a dramatic context. [Foothill GE: Communication &amp; Analytical Thinking, Human; Transferability: UC/CSU]</td>
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<td>COMM 30</td>
<td>ORAL INTERPRETATION OF LITERATURE</td>
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<td>Formerly: SPCH 30</td>
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<td>Advisory: Not open to students with credit in DRAM 30 or SPCH 30.</td>
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<td>5 hours lecture</td>
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<td>Introductory techniques of selection, comprehension, oral interpretation and presentation of prose, poetry, and dramatic literature, exploring diverse cultural and ethnic backgrounds.</td>
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<td>[Foothill GE: Communication &amp; Analytical Thinking; Transferability: UC/CSU]</td>
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<td>COMM 34H</td>
<td>HONORS INSTITUTE SEMINAR IN COMMUNICATION STUDIES</td>
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<td>Formerly: SPCH 34</td>
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<td>Prerequisite: Honors Institute participant.</td>
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<td>Advisory: Not open to students with credit in SPCH 34 or 34H.</td>
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<td>1 hour lecture</td>
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<td>A seminar in directed readings, discussions, and projects in speech. Specific topics to be determined by the instructor. [Transferability: CSU; UC credit may be granted after transfer and upon portfolio review.]</td>
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<td>COMM 35</td>
<td>DEPARTMENT HONORS PROJECTS IN COMMUNICATION STUDIES</td>
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<td>Formerly: SPCH 35</td>
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<td>Advisory: COMM 1A or 4.</td>
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<td>Any combination of COMM 35–35Z may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit.</td>
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<td>1 hour lecture</td>
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<td>A seminar of advanced research in the critical elements of speech communication. Discussions and individual writing projects under instructor supervision. Specific topics will vary from quarter to quarter. This course can be substituted for departmental requirements. Enrollment in this course is available in the Fine Arts Division Office.</td>
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<td>[Transferability: CSU]</td>
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<tr>
<td>COMM 36</td>
<td>SPECIAL PROJECTS IN SPEECH</td>
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<td>Formerly: SPCH 36</td>
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<td>Advisory: COMM 1A or 4.</td>
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<td>Any combination of COMM 36–36Z may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit.</td>
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<td>1 hour lecture</td>
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<tr>
<td></td>
<td>A seminar of advanced research in the critical elements of speech communication. Discussions and individual writing projects under instructor supervision. Specific topics will vary from quarter to quarter.</td>
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</tbody>
</table>
COMM 190  DIRECTED STUDY  .5 Unit
COMM 190X  1 Unit
COMM 190Y  1.5 Units
COMM 190Z  2 Units

Formerly: SPCH 190
Non-degree applicable credit course.
Advisory: Pass/No Pass.
Any combination of COMM 190–190Z may be taken for a maximum of 12 units.
.5 hour lecture, 1.5 hours laboratory for each .5 unit of credit.
For students who desire or require additional help in attaining comprehension and competency in learning skills.

**COMM 105** SPEAKING WITH CONFIDENCE  4.5 Units

**Formerly: SPCH 105**
Advisory: Not open to students with credit in SPCH 105.
4 hours lecture, 1.5 hour laboratory.
Emphasizes experiences in verbal communications specifically designed to reduce speaking anxiety/communication reticence. Development of practical skills in academic, social and work/professional situations where success is largely dependent on clear, effective communication.

**COMM 54** INTERCOLLEGIATE SPEECH/DEBATE  1.5 Units
**COMM 54X**  2.5 Units
**COMM 54Y**  3.5 Units
**COMM 54Z**  4.5 Units

**Formerly: SPCH 54**
Advisory: Eligibility for ENGL 1A or ESLL 26 or equivalent.
Any combination of COMM 54–54Z may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit.
1 hour lecture, 1.5 hours laboratory for each 1.5 unit of credit.
Training in principles of debate and forensic speech; preparation for participation in competitive debate, extemporaneous speaking and oratory. Students required to attend intercollegiate forensic tournaments. [Transferability: CSU]

**COMM 55** CAREER & LEADERSHIP COMMUNICATION IN THE GLOBAL WORKPLACE  5 Units

**Formerly: SPCH 55**
Advisory: Eligibility for ENGL 1A or ESLL 26 or equivalent.
May be taken 2 times for credit.
5 hours lecture.
Introduction to communication in organizational, career, leadership and global contexts. Interviewing, interpersonal and intercultural communication, group interactions, professional presentations, and leadership development. Application of theories and skills through critically evaluated exercises. [Foothill GE: Communication & Analytical Thinking; Transferability: CSU]

**COMM 190Z** DIRECTED STUDY  .5 Unit
COMM 190X  1 Unit
COMM 190Y  1.5 Units
COMM 190Z  2 Units

Formerly: SPCH 190
Non-degree applicable credit course.
Advisory: Pass/No Pass.
Any combination of COMM 190–190Z may be taken for a maximum of 12 units.
.5 hour lecture, 1.5 hours laboratory for each .5 unit of credit.
For students who desire or require additional help in attaining comprehension and competency in learning skills.

**COMM 105** SPEAKING WITH CONFIDENCE  4.5 Units

**Formerly: SPCH 105**
Advisory: Not open to students with credit in SPCH 105.
4 hours lecture, 1.5 hour laboratory.
Emphasizes experiences in verbal communications specifically designed to reduce speaking anxiety/communication reticence. Development of practical skills in academic, social and work/professional situations where success is largely dependent on clear, effective communication.

**COMM 54** INTERCOLLEGIATE SPEECH/DEBATE  1.5 Units
**COMM 54X**  2.5 Units
**COMM 54Y**  3.5 Units
**COMM 54Z**  4.5 Units

**Formerly: SPCH 54**
Advisory: Eligibility for ENGL 1A or ESLL 26 or equivalent.
Any combination of COMM 54–54Z may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit.
1 hour lecture, 1.5 hours laboratory for each 1.5 unit of credit.
Training in principles of debate and forensic speech; preparation for participation in competitive debate, extemporaneous speaking and oratory. Students required to attend intercollegiate forensic tournaments. [Transferability: CSU]

**COMM 55** CAREER & LEADERSHIP COMMUNICATION IN THE GLOBAL WORKPLACE  5 Units

**Formerly: SPCH 55**
Advisory: Eligibility for ENGL 1A or ESLL 26 or equivalent.
May be taken 2 times for credit.
5 hours lecture.
Introduction to communication in organizational, career, leadership and global contexts. Interviewing, interpersonal and intercultural communication, group interactions, professional presentations, and leadership development. Application of theories and skills through critically evaluated exercises. [Foothill GE: Communication & Analytical Thinking; Transferability: CSU]
CIS 12W DEVELOPING WEB APPLICATIONS WITH VISUAL BASIC.NET
5 Units
Advisory: CIS 12A.
4 hours lecture, 4 hours laboratory.
Developing Web Applications using the VB.NET language. Visual Basic.NET is one of the latest programming languages from Microsoft designed to support the Internet solutions. Using the Internet related classes in the .NET Framework, VB.NET provides a powerful set of tools both for constructing Web Forms applications using ASP.NET as well as XML Web Services. This Course, which assumes a basic understanding of VB or C# programming, covers all of the key elements of building Web Applications and is targeted at preparing students for the Microsoft Web Applications Certification Exam. [Transferability: UC/CSU]

CIS 15A COMPUTER SCIENCE I: C++
5 Units
Advisory: MATH 220
4 hours lecture, 4 hours laboratory.
Introduces the discipline of computer science using the C++ language; provides an overview of computer organization and an introduction to software engineering. Topics include methodologies for program design, development, style, testing and documentation, and object oriented design; algorithms, control structures, sub-programs, elementary data structures. [Foothill GE: Communication & Analytical Thinking; Transferability: UC/CSU]

CIS 15B COMPUTER SCIENCE II: C++
5 Units
Advisory: CIS 15A.
4 hours lecture, 4 hours laboratory.
A systematic approach to the design, construction, and management of computer programs, emphasizing object-oriented design and programming, documentation, testing and debugging techniques. Focuses on classes, strings, arrays, pointers, and dynamic allocation, and disk files in the C++ programming language. Introduction to basic data structures. Builds on the concepts presented in CIS 15A. [Transferability: UC/CSU]

CIS 15C COMPUTER SCIENCE III: DATA STRUCTURES & ALGORITHMS C++
5 Units
Advisory: CIS 15B or equivalent.
4 hours lecture, 4 hours laboratory.
A systematic approach to the design and construction of data structures and algorithms. Focuses on defining abstract data types, including arrays, stacks, queues, trees, and graphs as well as searching and sorting techniques and recursive algorithms. Analysis of algorithms and their performance will be evaluated. [Transferability: UC/CSU]

CIS 15D DESIGNING WITH C++ CLASSES
5 Units
Advisory: CIS 15B or CIS 15P.
4 hours lecture, 4 hours laboratory.
Survey of the practice, theory and advanced techniques of object-oriented computer programming using the C++ programming language in a practical and realistic software environment. [Transferability: UC/CSU]

CIS 15P C++ FOR PROGRAMMERS
5 Units
Advisory: CIS 25A, 27B or equivalent C or JAVA programming class.
4 hours lecture, 4 hours laboratory.
Introduction to the theory and techniques of object-oriented computer programming using the C++ programming language. Encapsulation, polymorphism, and inheritance including both single and multiple inheritance. The syntax of C++ will be introduced in a context that stresses both the theoretical and practical advantages of object-oriented design methodology. [Transferability: UC/CSU]

CIS 18 DISCRETE MATHEMATICS
5 Units
Prerequisite: MATH 49.
Advisory: Not open to students with credit in MATH 22.
5 hours lecture, 1 hour laboratory.
Discrete mathematics: set theory, logic, Boolean algebra, methods of proof, mathematical induction, number theory, discrete probability, combinatorics, functions, relations, recursion, algorithm efficiencies, graphs, trees. [Foothill GE: Communication & Analytical Thinking; Transferability: UC/CSU]

CIS 19A INTRODUCTION TO PROGRAMMING WITH C#
5 Units
Advisory: CIS 12A or 15A or 27A.
4 hours lecture, 4 hours laboratory.
Introduction to programming using the C# language. C# is a new programming language which was developed expressly for the .NET platform. C# has now become the exclusive language used by Microsoft for all of its internal development. This course provides an introduction to basic object oriented programming constructs from the point of view of C#. Students will learn how to build both console and Windows forms based applications. [Transferability: UC/CSU]

CIS 19D DEVELOPING WINDOWS-BASED APPLICATIONS WITH C#
5 Units
Advisory: CIS 19A.
4 hours lecture, 4 hours laboratory.
Developing Windows Based Applications using C#. Internally, Microsoft has shifted the development of all new projects to the use of C#, relegating C and C++ to purely maintenance tasks for existing products. Evidencing Microsoft’s commitment to C#, the next version of the Windows Operating System (codename Longhorn) will largely replace the Win32 API with the .NET Framework. C# is a powerful new programming language which grafts the rapid application development capabilities of Visual Basic onto the strongest features of C++. This Course, which assumes a basic understanding of C# programming, covers all of the key elements of building classic WinForms Applications and is targeted at preparing students for the Microsoft Windows-Based Applications Certification Exam. [Transferability: UC/CSU]

CIS 19K USER INTERFACE DESIGN WITH EXPRESSIONS BLEND
5 Units
Advisory: CIS 19M, COIN 78.
May be taken 3 times for credit.
4 hours lecture, 4 hours laboratory.
Expression Blend is a new tool from Microsoft for designing both Windows and Web user interfaces using XAML, an XML derivative. Blend seamlessly permits the incorporation of audio, video, 2D and 3D vector art, bitmap images and animations into stunning user interfaces. Through data binding and other markup extensions, XAML permits the implementation of a considerable degree of functionality without requiring a full fledged programming language such as C#. At the same time, Blend is able to totally coordinate with Visual Studio so that the same project can be worked on simultaneously by a designer using Blend and by a C# developer using Visual Studio. Blend will ultimately be used both by professional user interface designers and by developers for most WPF (Windows Presentation Foundation) UIs since its feature set for design purposes is considerably richer than the equivalent designer in Visual Studio.

CIS 19L WINDOWS COMMUNICATION FOUNDATION (WCF) INTRODUCTION
5 Units
Advisory: CIS 12D, 12W, 19D, 19W.
May be taken 3 times for credit.
4 hours lecture, 4 hours laboratory.
This course provides students with an understanding of the Windows Communications Foundation and the skills required to use this Framework to develop service-oriented applications (SOA) on Windows. This course will explain how to take advantage of built-in features of Version 3.0 (and following) of the .NET Framework such as service hosting, instance management, asynchronous calls, synchronization, reliability, transaction management, disconnected queued calls and security to build distributed applications. [Transferability: CSU]

CIS 19M WINDOWS PRESENTATION FOUNDATION INTRODUCTION
5 Units
Advisory: CIS 12C, 19D, COIN 78.
May be taken 3 times for credit.
4 hours lecture, 4 hours laboratory.
This course provides students with an understanding of the Windows Presentation Foundation and the skills required to use this Framework to create both dynamic C# Windows Forms and browser hosted applications. WPF is a new programming paradigm introduced in Version 3.0 of the .NET Framework as an alternative to traditional Windows Forms programming. WPF effectively permits the separation of user interface design (to be
Thinking; Transferability: UC/CSU]

Emphasis on C syntax and structured programming. Designed for
Introduction to the C programming language and its applications.
4 hours lecture, 4 hours laboratory.

This course provides students with an understanding of how to deploy
.NET applications using Microsoft Installer, MSBuild and ClickOnce
technologies. The course will address the installation of both Windows
Forms applications and Web Applications. It also covers both initial
installations and service packs as well as patches and other updates.
[Transferability: CSU]

CIS 19N DEPLOYING .NET APPLICATIONS 5 Units
Advisory: CIS 12C, 19D.
May be taken 3 times for credit.
4 hours lecture, 4 hours laboratory.

CIS 19P ADVANCED PROGRAMMING 5 Units
WITH C#
Advisory: CIS 12A or 15A or 19A or 27A.
4 hours lecture, 4 hours laboratory.
Advanced programming using the C# language. C# is a new programming
language introduced by Microsoft as an intended replacement for C++ and
as an attempt to leap-frog Java. C# incorporates the power and speed of
C++ with the rapid design features of Visual Basic. C# extends its heritage
as a fully object oriented language and broadens its scope from suitability
for forms based applications to web based applications as well. This course
explores how to create forms based applications with this powerful, yet
simple, new programming language. It explains how to leverage the
hundreds of built-in classes provided by the .NET Framework to quickly
and efficiently build robust applications. [Transferability: UC/CSU]

CIS 19V USING VISUAL STUDIO TOOLS 5 Units
FOR OFFICE
Advisory: CIS 12A or 19A.
May be taken 3 times for credit.
4 hours of lecture, 4 hours laboratory.
Visual Studio Tools for Office (VSTO) is an add-in to Visual Studio 2005
which allows developers to build Microsoft Office related applications.
VSTO applications can take three forms: (1) Office automation, (2) Office
add-ins and (3) Code behind Office documents. Office automation refers
to a C# or VB.NET application which uses some capability of one or more
Office applications to perform a given task. For example, an application
could use either Word or Excel to print a document pursuant to some
pre-designed format. Office add-ins are applications which run at the
same time as the Office application with which they are associated and
which appear to be an integral part of the application’s user interface.
Code behind Office documents correspond to classic Visual Basic
applications which run at the discretion of the instructor.

CIS 19W DEVELOPING WEB APPLICATIONS 5 Units
Advisory: CIS 19A.
4 hours lecture, 4 hours laboratory.
Developing Web Applications using C# language. C# is the first
programming language from Microsoft designed from the ground up
to support the Internet. Using the Internet related classes in the .NET
Framework, C# provides a powerful set of tools both for constructing
Web Forms applications using ASP.NET as well as XML Web Services.
This course assumes a basic understanding of C# programming, covers
all of the key elements of building Web Applications and is targeted at
preparing students for the Microsoft Web Applications Certification Exam.
[Transferability: CSU]

CIS 25A PROGRAMMING IN C 5 Units
Advisory: Knowledge of a high-level programming language.
4 hours lecture, 4 hours laboratory.
Introduction to the C programming language and its applications.
Emphasis on C syntax and structured programming. Designed for
individuals who have a good grasp of computer fundamentals and some
programming experience. [Foothill GE: Communication & Analytical
Thinking; Transferability: UC/CSU]

CIS 25B ADVANCED PROGRAMMING IN C 5 Units
Advisory: CIS 25A, 15A or equivalent.
4 hours lecture, 4 hours laboratory.
Advanced professional programming in C. The C compiler, code
generation, subroutine linkage, structured programming, complex
declarations, memory allocation, use of the heap and stack,
multidimensional arrays, advanced pointers, recursion, I/O, debugging
and portability. [Transferability: UC/CSU]

CIS 27A COMPUTER SCIENCE I: JAVA 5 Units
Advisory: MATH 220.
4 hours lecture, 4 hours laboratory.
Introduces the discipline of computer science using the Java language;
provides an overview of computer organization and an introduction to
software engineering. Topics include methodologies for program design,
development, style, testing and documentation; algorithms, control
structures, sub-programs, objects, and elementary data structures.
[Transferability: UC/CSU]

CIS 27B COMPUTER SCIENCE II: JAVA 5 Units
Advisory: CIS 27A or equivalent.
4 hours lecture, 4 hours laboratory.
A systematic approach to the design, construction, and management
of computer programs, emphasizing object oriented design and
programming, documentation, testing and debugging techniques.
Focuses on classes, inheritance, graphical user interfaces, event-driven
programs, Web applets, and disk files. Introduction to basic data structures.
Builds on the concepts presented in CIS 27A. [Transferability: UC/CSU]

CIS 27C COMPUTER SCIENCE III: DATA STRUCTURES & ALGORITHMS
IN JAVA 5 Units
Advisory: CIS 27B.
4 hours lecture, 4 hours laboratory.
A systematic approach to the design and construction of programs using
common data structures and their associated algorithms. Focuses on
defining abstract data types including arrays, stacks, queues, and trees,
as well as searching and sorting techniques, disk files, and recursive
programming techniques. Builds on the concepts presented in CIS 27B.
[Transferability: UC/CSU]

CIS 27D JAVA ADVANCED FEATURES 5 Units
Advisory: CIS 27B or 27P.
4 hours lecture, 4 hours laboratory.
Covers several of the more important advanced features of Java not
normally covered in CIS 27A or 27B. Topics will include, but will not be limited
to, input and output streams, multithreading networking, Remote Method
Invocation (RMI), Java Beans, 2D graphics, advanced multimedia and
other topics at the discretion of the instructor. [Transferability: UC/CSU]

CIS 27F JAVA FOR PROGRAMMERS 5 Units
Advisory: Prior C/C++ programming experience.
4 hours lecture, 4 hours laboratory.
A comprehensive course in the Java programming language intended
for students with previous experience programming in C or C++ and a
basic understanding of computer science concepts. Provides instruction
in object-oriented programming in Java and the use of classes, data
abstraction, arrays, strings, graphics, GUI, files, exception handling and
applets. Note: Students with no programming experience who wish to
learn Java should opt for CIS 27A. [Transferability: UC/CSU]

CIS 30 SELECTED TOPICS IN PROGRAMMING TECHNOLOGY 5 Units
May be taken 3 times for credit.
4 hours lecture, 4 hours laboratory.
Introduction to various programming languages and software development tools. [Transferability: CSU]

All courses on this page are Title 5 degree applicable credit courses unless otherwise noted.
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CIS 50A  USING THE COMPUTER: PC (WINDOWS)  5 Units
Advisory: Not open to students with credit in CIS 50B.
4 hours lecture, 4 hours laboratory.
Introduction to the computer and its uses for the student with little or no computer experience. Use of the IBM PC (Windows) for hands-on experience with a word processor, a spreadsheet, a database manager, graphics, file management techniques, simple software configuration, an Internet browser, and the use of a programming language. Discussion of other software applications and of the role of computers and the information superhighway in our society. [Foothill GE: Lifelong Understanding; Transferability: CSU]

CIS 51A  PREPARATION FOR TECHNOLOGY CAREERS  3 Units
1.5 hours lecture, 1.5 hours lecture-laboratory, 2 hours laboratory. Introduction to Foothill College technology programs. CIS 51A prepares students to differentiate among the technology careers and enter the career path of their choice. The local opportunities in technology careers to be discussed. In addition, professional and academic preparations, basic skills needed and resources available at Foothill College and aligned schools and industry will be thoroughly reviewed. [Transferability: CSU]

CIS 51C  WORKPLACE PRINCIPLES & PRACTICES  4 Units
Advisory: Grade of "C" or better in ENGL 110 or ESLL 25, or eligibility for ENGL 1A or ESLL 26.
1.5 hours lecture, 1.5 hours lecture-laboratory, 3 hours laboratory. Concepts, principles and practices in the information technology workplace. Emphasis on how the issues of currency, certification, ethical decision-making, globalization, diversity, organizational roles and responsibilities, collaboration and work-teams, customer service and total quality management apply to the information technology workplace. [Transferability: CSU]

CIS 52A  INTRODUCTION TO DATA MANAGEMENT SYSTEMS  5 Units
Advisory: CIS 52B or 50B, or equivalent.
4 hours lecture, 4 hours laboratory.
Introduction to database systems and data management. Topics include database definitions and concepts, relational database, client/server database, Internet database, distributed database, object-oriented database, data warehousing, transaction management, database administration, database performance, and hands-on experience with a database management system. [Transferability: CSU]

CIS 52B  ORACLE SQL  5 Units
4 hours lecture, 4 hours laboratory.
Introduction to Oracle 11g Structured Query Language used in querying single and multiple tables, manipulating data in tables, and creating database objects in a relational database. Students will gain essential SQL skills through hands-on exercises that reinforce SQL fundamental concepts. This course prepares students to take the Oracle Certified Associate exam and the Oracle Certified Professional exam. [Transferability: CSU]

CIS 52C  DATABASE MODELING & RELATIONAL DATABASE DESIGN  5 Units
4 hours lecture, 4 hours laboratory.
Introduction to data modeling and the process of database design. This course covers the database development process, entity-relationship model, logical and physical database design. [Transferability: CSU]

CIS 52E  ORACLE DATABASE ADMINISTRATION I  5 Units
Advisory: CIS 52B or equivalent.
4 hours lecture, 4 hours laboratory.
The fundamentals of Oracle 11g database administration. Students will acquire an understanding of the Oracle database architecture and how each component work and interact with each other. Students will create, manage, and maintain the operation of a database and gain essential skills in user management, backup and recovery, performance monitoring, database security, Oracle Net Services, Oracle shared servers, lock monitoring, and data movement. Hands-on exercises reinforce basic concepts in the course. This course prepares students to take the Oracle Certified Associate exam and the Oracle Certified Professional exam. [Transferability: CSU]

CIS 52F  ORACLE DATABASE ADMINISTRATION II  5 Units
Advisory: CIS 52E or equivalent.
4 hours lecture, 4 hours laboratory.
Introduction to Oracle 11g database backup and recovery using RMAN, recovery catalog and user-managed techniques. Students will learn how to diagnose the database, manage Oracle memory structures, use database performance monitoring tools, use flashback technology and flashback database, manage resources, automate tasks, use Segment Advisor, work with automatic storage management (ASM), and use globalization support. Hands-on exercises reinforce topics covered in the course. This course prepares students to take the Database Administration Oracle Certified Professional exam. [Transferability: CSU]

CIS 52J  ORACLE: PROGRAM WITH PL/SQL  5 Units
Advisory: CIS 52B or equivalent.
4 hours lecture, 4 hours laboratory.
Introduction to Oracle 11g PL/SQL Programming Language for the Structured Query Language. This course covers the benefits, concepts, application, and management of PL/SQL program units. Students will learn how to create PL/SQL blocks, stored procedures, functions, packages, and database triggers; handle run-time errors; write dynamic SQL; use Oracle-supplied packages; and manage dependencies and PL/SQL codes. Hands-on exercises reinforce the concepts in this course. [Transferability: CSU]

CIS 52K  ORACLE FORMS DEVELOPER: BUILD INTERNET APPLICATIONS  5 Units
Advisory: CIS 52J.
4 hours lecture, 4 hours laboratory.
Introduction to developing, testing, and deploying of Internet applications using Oracle’s Developer Suite10g. Students will learn how to build and customize forms, control data access through event-related triggers, display Form elements in multiple windows, test and debug Web applications. This course helps students prepare for one of the exams in the Oracle Forms Developer Certified Professional Program. [Transferability: CSU]

CIS 52N  PHP & MYSQL  5 Units
4 hours lecture, 4 hours laboratory.
Students learn how to code PHP and MySQL languages used to generate powerful, database-driven, dynamic Web sites. This course covers the rudiments of PHP programming, including the anatomy of a PHP script, operators, strings, conditionals, loops, arrays, and functions; and MySQL capabilities, including MySQL command-line options, connecting to the database, and phpMyAdmin tool. [Transferability: CSU]

CIS 52P  PHP PROGRAMMING  5 Units
Advisory: CIS 52N.
4 hours lecture, 4 hours laboratory.
Students learn the intermediate and advanced features of PHP to develop powerful web applications. Topics include object-oriented programming, error handling and debugging, regular expressions and pattern matching, files and directories, PHP forms, PHP and email, cookies and sessions, secure coding with PHP, and PHP and MySQL integration.

CIS 52Q  MYSQL: IN-DEPTH  5 Units
4 hours lecture, 4 hours laboratory.
In-depth study of MySQL 5.0. Overview of MySQL architecture and configuration; MySQL Administrator features; MySQL storage engines; table and user maintenance; backup and recovery; optimizing queries, databases, server, and the environment; and securing the MySQL installation. This course also covers data manipulation and data definition language; triggers, stored procedures, and functions; and database metadata. Preparers students to take the MySQL 5.0 Database Administrator and MySQL 5.0 Developer Certification exams. [Transferability: CSU]
CIS 54C  MICROSOFT SQL SERVER DATABASE DEVELOPMENT & DESIGN  5 Units
4 hours lecture, 4 hours laboratory.

CIS 54D  MICROSOFT SQL SERVER IMPLEMENTATION & MAINTENANCE  5 Units
4 hours lecture, 4 hours laboratory.
This course provides students with the knowledge and skills in implementing and maintaining a database using Microsoft SQL Server 2008. The first course in the Microsoft MCTP certification series designed to prepare students for the Microsoft Certified IT Professional (MCTP): Database Administrator Exam 70-432 — TS: Microsoft SQL Server 2008 Implementation and Maintenance. This course will also help in preparing for the Microsoft Certified Technology Specialist (MCTS) certification exam. [Transferability: CSU]

CIS 54E  MICROSOFT SQL SERVER DATABASE ADMINISTRATION  5 Units
Advisory: CIS 54D.
4 hours lecture, 4 hours terminal time.
This course provides students with the knowledge and skills in optimizing and maintaining a database administration solution using Microsoft SQL Server 2008. The second course in the Microsoft MCTP certification series designed to prepare students for the Microsoft Certified IT Professional (MCTP): Database Administrator Exam 70-450 — PRO: Designing, Optimizing and Maintaining a Database Administrative Solution Using Microsoft SQL Server 2008 [Transferability: CSU]

CIS 55A  INTRODUCTION TO GAMES  5 Units
4 hours lecture, 4 hours laboratory.
An overview of the game development industry including the positions and job responsibilities that each member of a game development team has along with the industry requirements for documentation. Introduces the student to the software development process. Students will create individual games using a game development environment. This class does not require any programming. [Transferability: CSU]

CIS 55B  INTRODUCTION TO GAME DESIGN  5 Units
4 hours lecture, 4 hours laboratory.
A systematic approach to the design and construction of computer games and real time simulations. Covers topics such as design theory and programming techniques. Students will create small scale games and game components. [Transferability: UC/CSU]

CIS 55C  PRACTICAL GAME DESIGN  5 Units
Advisory: CIS 55B.
4 hours lecture, 4 hours laboratory.
A project based approach to the practice and art of computer game design and real-time simulations. Emphasizes the practical techniques and procedures necessary to create a game. Working in teams, students will design and create a real-time interactive game. The C++ programming language will be used to implement projects. [Transferability: CSU]

CIS 56  INTRODUCTION TO BUSINESS INFORMATION SYSTEMS  5 Units
Advisory: MATH 220 or equivalent; eligibility for ENGL 1A or ESLL 26.
4 hours lecture, 4 hours terminal time.
Introduction to the concepts of business information systems especially as used in business and similar organizations. Covers the need for information, how computers are used in business to provide information, elements of computer hardware and software, software development, data storage and communication, and the social impact of computers. Hands-on introduction to programming concepts, word processing, spreadsheet and database applications. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]

CIS 61A  INFORMATICS  5 Units
Advisory: CIS 60 or equivalent.
Corequisite: CIS 61B.
4 hours lecture, 4 hours laboratory.
Introduction to the concepts, practice and tools underlying the study of Informatics. Topics include, but not limited to, Information representation and infrastructure, Meta data, the Semantic web, knowledge management, data warehousing, data mining, user interface, analytical tools, careers, industry trends, social, global and organizational impacts, and applications in business, industry and education. [Transferability: CSU]

CIS 61B  PREPARATION FOR CAREERS IN INFORMATICS  2 Units
Advisory: Not open to students with credit in CIS 51A.
2 hours lecture, 1 hour laboratory.
Orientation to the Foothill College Informatics program. The course has two goals for participating students - to help the student in differentiating among the potential careers paths in the field of informatics, and to prepare the student in the career path chosen. Opportunities in informatics and related careers will be discussed. Interest, aptitude and readiness for a career in informatics will be analyzed by the student. Professional and academic preparation, basic skills needed and resources available at Foothill College and aligned schools and industry will be covered through discussion and classroom laboratory applications. [Transferability: CSU]

CIS 61C  INFORMATICS TOOLS & METHODS  5 Units
Advisory: CIS 61A or equivalent; MATH 10; familiarity with SQL.
May be taken 3 times for credit.
4 hours lecture, 4 hours terminal time.
Introduces students to the methods of using Excel, Access, Informatica, and SAS in solving informatics problems. Hands on use of each tool in combined directed data analysis, integration, and migration activities. Hands on exercises with business intelligence tools, creating reports, customizing dashboards, and use of Meta directories. Use of SQL queries on data cubes for creating custom and automated reports. [Transferability: CSU]

CIS 61X  INFORMATICS PROJECTS  1 Unit
CIS 61Y  2 Units
CIS 61Z  3.5 Units
Advisory: CIS 61A, 63B or equivalent.
5 hour lecture, 2 hours terminal time for each unit of credit.
Projects course for demonstrating working knowledge of Informatics process and architecture. Students will create an Informatics project incorporating data storage, analysis, and reporting. Typical projects will include, but not be limited to, data mining, visualization, Web-database integration, and XML report formats. Goal of the project is to demonstrate working knowledge, skills, and abilities in Informatics. Concurrent work experience and projects may be submitted with consent of instructor. [Transferability: CSU]

CIS 62A  DATA WAREHOUSING & WEB MINING  5 Units
Advisory: CIS 52C or equivalent.
4 hours lecture, 4 hours laboratory.
Students will learn the key aspects of data warehousing and data mining with emphasis on mining data from Internet Web sites using a project building approach. Through ‘hands on’ activities students will work with data models that detect patterns in business data sets and develop mining techniques for web intelligence. Topics include data warehouse design and implementation, data migration strategies, automation techniques, knowledge discovery and mining techniques, web usage mining, web content mining and web structure mining, tools integration and metadata for end user reporting and utilization. [Transferability: CSU]
CIS 63A  SYSTEMS ANALYSIS, DESIGN & HUMAN INTERFACE  5 Units
Advisory: CIS 60 or equivalent; familiarity with object-oriented computer applications; PowerPoint©, Flash© or equivalent presentation software. 4 hours lecture, 4 hours laboratory. Introduction to systems development, techniques and tools. Special emphasis is placed on analysis, design and evaluation techniques particularly relevant to HCI. Graphic interface tools are used as a design and implementation prototyping environment. [Transferability: CSU]

CIS 63A1  SYSTEMS ANALYSIS & DESIGN  5 Units
Prerequisite: CIS 60 or equivalent.
Advisory: Database or application programming; PowerPoint© or Visio© or equivalent presentation/diagramming software. 4 hours lecture, 4 hours laboratory. Introduction to systems development, techniques and tools. Emphasis is placed on analysis, design and evaluation techniques using traditional and object oriented models. Tools used for the elements of system development will include current popular project management and diagramming applications. The focus of the course is on systems analysis and design in relation business information systems development with the use of CASE tools. [Transferability: CSU]

CIS 63B  DESIGN & ANALYSIS FOR INFORMATICS RESEARCH  5 Units
Advisory: MATH 10 and CIS 63A or equivalent. May be taken 3 times for credit. 4 hours lecture, 4 hours laboratory. Examines the concepts, techniques, tools and methods used typically in Informatics research. Topics presented are directed toward analysis of experimental, quasi-experimental and survey data. Hands-on experience with such packages as EXCEL and SAS or SPSS to collect, organize and process data. Emphasis on data integrity, data visualization descriptive statistics, ANOVA, and REGRESSION analyses. [Transferability: CSU]

CIS 64A  COMPUTERIZED ACCOUNTING PRACTICE  1 Unit
Prerequisite: ACCTG 1A or equivalent experience.
Advisory: MATH 10 or high school algebra; not open to students with credit in ACTG 64A. 2 hours lecture-laboratory. Practice in accounting procedures and review of accounting principles. Recording business transactions in accounting records and completing the accounting cycle using the computer. [Transferability: CSU]

CIS 64B  COMPUTERIZED ACCOUNTING: SPREADSHEET  1 Unit
Prerequisite: ACTG 1B or equivalent experience.
Advisory: MATH 10 or high school algebra; not open to students with credit in ACTG 64B. 2 hours lecture-laboratory. Practice in using an electronic spreadsheet program to organize and process financial and managerial accounting data. Includes analysis of spreadsheet reports. [Transferability: CSU]

CIS 68A  INTRODUCTION TO LINUX & UNIX  5 Units
Advisory: CIS 50A or 50B or equivalent. 4 hours lecture, 4 hours laboratory. An introduction to the Linux and UNIX operating systems, primarily focused on command line usage. Covers the kernel, file systems, shells and user utilities. Also introduces students to the fundamentals of shell programming, processes, communications, and basic security. [Transferability: UC/CSU]

CIS 68B  LINUX & UNIX SHELL PROGRAMMING  5 Units
Advisory: CIS 68A or equivalent. 4 hours lecture, 4 hours terminal time. Linux shell script programming using the Bourne Again shell programming language (bash) and UNIX utilities to create practical shell scripts. [Transferability: UC/CSU]

CIS 68C1  LINUX & UNIX SYSTEM ADMINISTRATION  5 Units
Advisory: CIS 68A or equivalent. 4 hours lecture, 4 hours laboratory. Introduction to basic system administration of Linux and UNIX systems. Overview of basic PC hardware, system boot process, administration utilities, and management of user accounts, file systems, basic networking, printing, security, accounting and logging. Software install and removal using source code and package managers. Kernel updating and boot managers. [Transferability: UC/CSU]

CIS 68C2  LINUX & UNIX NETWORKING ADMINISTRATION  5 Units
Advisory: CIS 68A, 68B and 68C1 or equivalent experience. 4 hours lecture, 4 hours laboratory. Advanced networking administration of the UNIX operating system. Hands-on experience with network setup, configuration and maintenance. [Transferability: CSU]

CIS 68C3  UNIX NAME SERVICE ADMINISTRATION  3 Units
Prerequisite: CIS 68C2 or equivalent experience. 2 hours lecture, 2 hours lecture-laboratory, 2 hours terminal time. Administration of a UNIX system operating in remote mode using a name service. Hands-on experience with configuration and maintenance. [Transferability: CSU]

CIS 68E  PROGRAMMING IN PERL  5 Units
Advisory: CIS 68A; one or more of CIS 15A or 25A or 27A or equivalent experience. 4 hours lecture, 4 hours laboratory. Perl, the Practical Extraction and Report Language, was conceived, created, and continuously developed as a text processing language for Unix-like(Linux and Unix) operating systems. Most of its semantics and syntax is tied directly to other Linux/Unix based languages such as C, awk, sh and Unix power utilities like grep and sed. Some of its power also derives from native Linux and Unix process control and file system operations. This course covers the core Perl language in a Linux and Unix based instruction environment to prepare the student for significant Perl programming challenges in the “real” world, as well as further study in intermediate and advanced Perl programming courses. [Transferability: UC/CSU]

CIS 68H  BIOPERL PROGRAMMING FOR BIOINFORMATICS  5 Units
Advisory: CIS 68E or COIN 68 or equivalent. 4 hours lecture, 4 hours laboratory. This course will introduce BioPerl modules in the analysis of bioinformatics data, including downloading, installing and configuring BioPerl in a Windows environment. Using BioPerl modules, this course will show the student how to retrieve, analyze and manipulate genomic/proteomics sequences from databases such as GenBank and GenPept, RefSeq, SWISSPROT, EMBL, etc. It will show how to use BioPerl modules to convert between and from various file formats including FASTA, SWISSPROT, and EMBL. It includes extracting annotations/features from sequence files, performing similar sequence searches and using sequence alignments. BioPerl modules exercises include running applications such as BLAST, Smith-Waterman, Clustalw, HMMER etc. This course is intended for bioinformatics students with a strong foundation in Perl, which is provided by the course CIS 68J. [Transferability: UC/CSU]

CIS 68J  PERL PROGRAMMING FOR BIOINFORMATICS  5 Units
Advisory: CIS 50A or equivalent. 4 hours lecture, 4 hours laboratory. Provides a strong foundation in Perl programming for Bioinformatics, which has become a required ‘lab skill’ for biologists. It shows the student how to use Perl in a Windows environment to solve programming problems such as creating, modifying, comparing and deleting biological data files, searching for motifs in these data files, manipulating sequences found in these data files etc. Elucidates basic programming concepts such as operators, conditional and looping constructs, file operations and regular
expressions. Class exercises emphasize use of biological sequence data for bioinformatics problem solving. This course provides the requisite skills to successfully complete the CIS 68H course. [Transferability: UC/CSU]

CIS 68K INTRODUCTION TO PYTHON PROGRAMMING
Advisory: CIS 15A or 27A, and CIS 68A. 4 hours lecture, 4 hours laboratory.
This course will introduce students to the Python language and environment. Python is a portable, interpreted, object-oriented programming language that is often compared to Perl, Java, Scheme and Tcl. The language has an elegant syntax, dynamic typing, and a small number of powerful, high-level data types. It also has modules, classes, and exceptions. The modules provide interfaces to many system calls and libraries, as well as to various windowing systems (X11, Motif, Tk, Mac, MFC). New built-in modules are easily written in C or C++. Such extension modules can define new functions and variables as well as new object types. [Transferability: UC/CSU]

CIS 68L INTERMEDIATE PYTHON PROGRAMMING
Advisory: CIS 68K. 4 hours lecture, 4 hours laboratory.
Extends the students’ understanding of how to write effective applications in the Python programming language. Covers topics that allow a Python program to interface to users, networked applications and databases. Includes advanced topics like multithreading and regular expressions. Enforces object-oriented design, thorough documentation, testing and conventional programming style. [Transferability: UC/CSU]

CIS 68M INTERMEDIATE PERL PROGRAMMING
Advisory: CIS 68E or some Perl programming experience; CIS 68L. 4 hours lecture, 4 hours laboratory.
This course presents core Perl language features used to manage the development and complexity of Perl programs requiring hundreds if not thousands of lines of code. An in-depth presentation of references and arbitrarily complex data structures provide a basis for object-oriented Perl. Perl and Linux/Unix based mechanisms for release cycle control, unit testing, and code packaging (i.e. a distribution) are also presented. This course is intended to leverage the environment of the Linux/Unix operating systems and its various subsystems (i.e. filesystems, process management, memory management, etc.) and therefore requires a working knowledge on the part of the student and a substantial background on the part of the instructor. [Transferability: CSU]

CIS 78 SOFTWARE ENGINEERING 5 Units
Advisory: Any structured programming class. 4 hours lecture, 4 hours laboratory.
A language-independent study of current software development methodologies. The stages of systems analysis, product design, implementation and testing are practiced. Collaborative, interactive design and technical writing are problem solving techniques learned. [Transferability: UC/CSU]

CIS 93U,V,W CIS EXPERIENTIAL INTERNSHIP 3 Units
May be taken for a maximum of 18 units of credit.
Any combination of CIS 93U-W may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit.
Off-campus supervised experiential education of CIS students in database administration, computer software development or Informatics. Opportunity for practical application of knowledge, skills and abilities acquired in CIS and related course work. Exposure to varied protocols, methodologies and practices in a professional working environment. [Transferability: CSU]

CIS 96 SPECIAL PROJECTS 1 Unit
CIS 96X 2 Units
CIS 96Y 3 Units
Any combination of CIS 96–96Y may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit. 3 hours laboratory for each unit of credit.
Individual research and/or projects in computer information systems, computer science or data communication. [Transferability: CSU]

CIS 102 COMPUTER KEYBOARDING SKILLS .5 Unit
Advisory: Pass/No Pass; not open to students with credit in CAST 102. 1 hour lecture-laboratory.
Beginning keyboarding course covering the operation of the keyboard using the touch system and the development of correct techniques to interact more efficiently with desktop computers, computer terminals, or electronic communication systems. Designed for independent skill learning.

CIS 111 LEARNING-COLLABORATIVE TRAINING 1 Unit
Non-degree applicable credit course.
Prerequisite: An earned “A” or “B” grade with instructor recommendation in the computer, electronics or networking course in which learning assistance will be provided to students.
Advisory: Pass/No Pass.
May be taken 3 times for credit.
1 hour lecture, 3 hours laboratory.
Training in strategies and skills necessary for assisting students in a collaborative learning environment; including techniques of group learning, study skills and subject-specific instructional support.

CIS 190 DIRECTED STUDY .5 Unit
CIS 190X 1 Unit
CIS 190Y 1.5 Units
CIS 190Z 2 Units
Non-degree applicable credit course.
Advisory: Pass/No Pass.
Corequisite: Concurrent enrollment in a computer science class or enrollment in any class requiring computer usage.
Any combination of CIS 190–190Z may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit.
.5 hour lecture, 1.5 hours laboratory for each .5 unit of credit.
Computer projects for students who desire or require additional help in attaining comprehension and competency in computer skills.

CIS 191 WRITING/COMMUNICATION 1 Unit
CIS 191X ACROSS THE CURRICULUM FOR 1 Unit
CIS 191Y COMPUTERS, TECHNOLOGY & 1.5 Units
CIS 191Z INFORMATION SYSTEMS 2 Units
Non-degree applicable credit course.
Advisory: Pass/No Pass.
Any combination of CIS 191–191Z may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit.
.5 hour lecture, 1.5 hour laboratory for each .5 unit of credit.
For students who desire additional help in attaining improved writing and speaking abilities in specific computer, technology and information systems disciplines.

CNET 50 INTRODUCTION TO COMPUTER NETWORKING 5 Units
4 hours lecture, 2 hours terminal time.
This is a survey course designed to provide interested students with an overview of current networking technologies. For students who are pursuing a career in networking, CNET 50 is a requirement for all CNET certificates and degrees. Course content includes data representation, protocols, transmission media, analog and digital transmission, Local, Wide, Wireless, Cellular, and Satellite networks, network connecting devices, TCP/IP, and the Internet. [Transferability: CSU]

CNET 52A INTRODUCTION TO COMPUTERS & INFORMATION COMMUNICATIONS TECHNOLOGY 5 Units
4 hours lecture, 4 hours laboratory.
This course is a general introduction to the area of computers and information technology, and is designed for all students. This survey course will examine a broad overview of topics including software, computers, networks, operating systems, and the Internet. [Transferability: CSU]
hardware, the networking of computer systems, information technology and survey of programming languages. The student will explore the implications of this technology with regard to today’s information society. [Transferability: CSU]

CNET 53A INTRODUCTION TO NETWORK MANAGEMENT
Advisory: CNET 50 or equivalent.
4 hours lecture, 2 hours laboratory.
The course covers industry-wide network and systems management topics, including SNMP data communication and data collection, infrastructure device discovery, topological mapping of the devices, capability to receive and respond to SNMP traps, architecture topics on managing network devices, servers, workstations, applications and databases using industry standard SNMP based tools such as OpenView. This course is designed to prepare the student for the General OpenView Certification Exam. [Transferability: CSU]

CNET 53B OPERATING JUNIPER RUTERS IN THE ENTERPRISE
Advisory: Knowledge of network and routing protocols equivalent to CNET 54B.
May be taken 3 times for credit.
4 hours lecture, 4 hours laboratory.
This course focuses on installation, configuration, operational analysis, and troubleshooting considerations of Juniper Networks routers in the enterprise. OJRE introduces Juniper Networks Enterprise Routing platforms including both M-series and J-series models. It then focuses on router configuration using both the J-Web graphical user interface (GUI) and the JUNOS software command-line interface (CLI). Real-world configuration and operational monitoring case studies are provided for general router configuration and for RIP, static, and OSPF routing. The class also provides an overview of common services such as the Virtual Router Redundancy Protocol (VRRP), the Multilink Point-to-Point Protocol (MLPPP) and Network Address Translation (NAT). Preparation for Juniper Networks Certified Internet Associate certification (JNCIA-ER, Exam JN0-342). [Transferability: CSU]

CNET 53C ADVANCED JUNIPER NETWORKS ROUTING IN THE ENTERPRISE
Advisory: Knowledge of network and routing protocols equivalent to CNET 53B.
May be taken 3 times for credit.
4 hours lecture, 4 hours laboratory.
The course is designed for networking professionals with advanced knowledge of, and experience with, Juniper Networks JUNOS-based routers and their deployment in the enterprise. JUNOS policy, BGP for enterprises, IGP Conversion, Layer 2 services, Layer 3 services overview, stateful firewall and NAT/PAT, IPSec VPNs, class of service, branch office connectivity, router management. Preparation for Juniper Networks Certified Internet Specialist certification (JNCIS-ER, Exam JN0-350). [Transferability: CSU]

CNET 53F INFORMATION STORAGE MANAGEMENT
Advisory: CNET 54A or equivalent.
4 hours lecture, 4 hours laboratory.
This course provides a comprehensive introduction to storage technology including Storage Area Networks (SANs) that will enable the student to make informed decisions concerning the selection and implementation of storage systems in a complex IT environment. The student will learn about the architectures, features, and benefits of intelligent storage systems. Topics include networked storage technologies and long-term archiving solutions, information security, and the emerging field of storage virtualization technologies. This course focuses on storage technology concepts and principles that are reinforced with examples of actual solutions. Realistic case studies enable you to design the most appropriate solution for given sets of criteria. [Transferability: CSU]

CNET 53M DESIGNING CISCO INTERNETWORKING SOLUTIONS
May be taken 3 times for credit.
4 hours lecture, 4 hours laboratory.
This course teaches the student how to design enterprise networks. The student will learn about network design using the Enterprise Composite Network Model. Network complexity and methods to simplify your design are important aspects of this course. Specific topics include local-area network (LAN) and wide-area network (WAN) designs, Internet Protocol (IP) addressing, routing protocol selection, designing voice networks, including security in your designs and network management design. This course is prepare the student for the Cisco Certified Design Associate (CCDA) certification examination. [Transferability: CSU]

CNET 53N FUNDAMENTALS OF ENTERPRISE NETWORK DESIGN
May be taken 3 times for credit.
4 hours lecture, 4 hours laboratory.
The course provides the student with an understanding of latest developments in network design and technologies. The course covers topics on network infrastructure, intelligent network services, and converged network solutions. The course is designed to prepare the student for the Certified Cisco Design Professional (CCDP) certification examination. [Transferability: CSU]

CNET 54A NETWORKING FUNDAMENTALS & THE TCP/IP PROTOCOL SUITE (CCNA I)
Advisory: CNET 50.
May be taken 3 times for credit.
4 hours lecture, 4 hours laboratory, 3 hours terminal time.
The course is designed to provide students with classroom and laboratory experience in current and emerging networking technologies. Instruction includes networking, network terminology, cabling, cabling tools, network protocols, network standards, the OSI model, LANs, WANs, routers, network topology, IP addressing, TCP, and network standards. This is the first course in the Cisco Networking Academy Program. This program will prepare students for the Cisco Certified Networking Associate (CCNA) exam. [Transferability: CSU]

CNET 54B ROUTING PROTOCOLS & CONCEPTS (CCNA II)
Advisory: CNET 54A or equivalent.
May be taken 3 times for credit.
4 hours lecture, 4 hours laboratory, 3 hours terminal time.
The course is an introduction to router routing protocols and concepts and terminology including distance vector and link state routing, RIPv1 and RIPv2, IGRP and EIGRP metric calculations, routing loop issues, routing theory, router IOS, and basic router configuration, scenario analysis and troubleshooting, and additional topics such as classless routing, discontiguous subnets, and Access Control Lists. The course also reviews TCP/IP basics, and IP addressing. This is the second course in the Cisco Networking Academy Program; it is designed to provide students with classroom and laboratory experience in current and emerging networking technology that will prepare them for the Cisco Certified Networking Associate (CCNA) exam. [Transferability: CSU]

CNET 54C LAN SWITCHING & WIRELESS NETWORKS (CCNA III)
Advisory: CNET 54B or equivalent.
May be taken 3 times for credit.
4 hours lecture, 4 hours laboratory, 3 hours terminal time.
The course is designed to provide students with classroom and laboratory experience advanced features of routers and routing concepts including the OSPF and EIGRP routing protocols, network congestion issues, LAN segmentation using bridges and switches, cut-through and store-and-forward switches, and the operation of the Spanning Tree protocol. This class includes hands-on experience using Cisco routers. This is the third course in the Cisco Networking Academy CCNA curriculum. [Transferability: CSU]
CNET 54D WAN TECHNOLOGIES (CCNA IV) 5 Units
Advisory: CNET 54C or equivalent. May be taken 3 times for credit.
4 hours lecture, 4 hours laboratory, 3 hours terminal time.
Instruction includes increasingly sophisticated router configuration (WAN services: LAPB, Frame Relay, ISDN/LAPD, HDLC, PPP, and DDR); WAN switch configuration; Network Address Translation; network troubleshooting. This is the fourth of four courses designed to introduce students to current and emerging networking technology, it is preparation for the Cisco Certified Networking Associate (CCNA) certification. [Transferability: CSU]

CNET 54E CCNA SECURITY 5 Units
Advisory: CNET 54D, CCNA Certification or equivalent.
4 hours lecture, 4 hours laboratory.
CCNA Security is a technology-focused course designed for students who are looking for career-oriented, entry-level Security specialist skills. It is designed for students with CCNA level knowledge and skills that are seeking to pursue advanced degrees and careers. The goals of this course are to: (1) provide an in-depth, theoretical understanding of Network Security, (2) provide students with the knowledge and skills necessary to design and support Network Security, (3) provide an experience-oriented course to students to prepare them for associate-level jobs in the industry through employing industry relevant instructional approaches, and (4) enable the student to have significant hands-on interaction with IT equipment to prepare them for certification exams and job opportunities. [Transferability: CSU]

CNET 54G BUILDING SCALABLE CISCO INTERNETWORKS (CCNP I) 5 Units
Advisory: CNET 54C or CCNA Certification or equivalent. May be taken 3 times for credit.
4 hours lecture, 4 hours laboratory, 3 hours terminal time.
This course is designed to provide students with classroom and laboratory experience in current and emerging networking technology that will prepare them for the Cisco Certified Networking Professional (CCNP) exam: Building Scalable Cisco Internetworks (BSCI). Instruction includes advanced IP addressing, advanced routing protocols including OSPF, EIGRP, IS-IS, and BGP, advanced access lists, multicast routing, and IPv6. [Transferability: CSU]

CNET 54H IMPLEMENTING SECURE CONVERGED WANS (ISCW) 5 Units
Advisory: CNET 54D or CCNA Certification or equivalent. May be taken 3 times for credit.
4 hours lecture, 4 hours laboratory, 3 hours terminal time.
This course is designed to provide students with classroom and laboratory experience in current and emerging networking technology that will prepare them for the Cisco Certified Networking Professional (CCNP) exam: Implementing Secure Converged WANS (ISCW) exam. This course will teach advanced skills required to secure and enhance services in enterprise networks for teleworkers and remote sites. It will focus on securing remote access and VPN client configuration. [Transferability: CSU]

CNET 54I BUILDING CISCO MULTILAYER SWITCHED NETWORKS (BCMSN) (CCNP III) 5 Units
Advisory: CNET 54C or CCNA Certification or equivalent. May be taken 3 times for credit.
4 hours lecture, 4 hours laboratory, 3 hours terminal time.
This course is designed to provide students with classroom and laboratory experience in current and emerging networking technology that will prepare them for the Cisco Certified Networking Professional (CCNP) exam: Building Cisco Multilayer Switching Networks. This course teaches advanced skills required for building enterprise-class switched networks with integrated VoIP and wireless applications. The course includes wireless LANs, basic QoS to support voice, high-availability features, and enhanced security for switches. [Transferability: CSU]

CNET 54J OPTIMIZING CONVERGED CISCO NETWORKS (ONT) (CCNP IV) 5 Units
Advisory: CNET 54G, 54H and 54I or equivalent. May be taken 3 times for credit.
4 hours lecture, 4 hours laboratory, 2 hours terminal time.
This course is designed to provide students with classroom and laboratory experience in current and emerging networking technology that will prepare them for the Cisco Certified Networking Professional (CCNP) exam: Optimizing Converged Cisco Networks (ONT). This course will teach the advanced skills required to optimize QoS in converged networks, supporting voice, wireless, and security applications. [Transferability: CSU]

CNET 54L NETWORK SECURITY I - FIREWALLS, ACCESS, CONTROL & IDENTITY MANAGEMENT 5 Units
Advisory: CNET 54D or the Cisco CCNA Certification. May be taken 3 times for credit.
4 hours lecture, 4 hours laboratory, 3 hours terminal time.
This course provides students with the knowledge and skills necessary to select appropriate security hardware, software, policies, and configurations based on an organization’s assessment of its security vulnerabilities in order to provide protection against known security threats. The course includes coverage of the Firewalls and the AAA Service. The concepts presented apply to all network security scenarios, the labs will feature Cisco hardware. [Transferability: CSU]

CNET 54M CISCO NETWORK SECURITY II - VIRTUAL PRIVATE NETWORKS, INTRUSION DETECTION SYSTEMS & INTRUSION PREVENTION SYSTEMS 5 Units
Advisory: CNET 54D or the Cisco CCNA Certification. May be taken 3 times for credit.
4 hours lecture, 4 hours laboratory, 2 hours terminal time.
This course provides students with the knowledge and skills necessary to select appropriate security hardware, software, policies, and configurations based on an organization’s assessment of its security vulnerabilities in order to provide protection against known security threats. The course includes coverage of the Firewalls, Intrusion Detection, the AAA Service, and VPNs. The concepts presented apply to all network security scenarios, the labs will feature Cisco hardware. [Transferability: CSU]

CNET 54N FUNDAMENTALS OF CISCO WIRELESS LANS 5 Units
Advisory: CNET 54B or a basic knowledge of networking and Cisco Router configuration. May be taken 3 times for credit.
4 hours lecture, 4 hours laboratory, 3 hours terminal time.
This course teaches students to plan, design, develop, implement, operate and troubleshoot wireless networks. It provides a comprehensive overview of technologies, security, and design best practices required for the successful implementation of wireless local area networks. The concepts presented apply to all wireless LAN designs, the labs will feature Cisco hardware. [Transferability: CSU]

CNET 54Q INTRODUCTION TO VOICE OVER IP (VOIP) TECHNOLOGIES 5 Units
Advisory: CNET 54D or the Cisco CCNA Certification or equivalent experience. May be taken 3 times for credit.
4 hours lecture, 4 hours laboratory, 3 hours terminal time.
This introductory course focuses on the basics of IP Telephony and Voice over IP technology. Participants will learn basic concepts and workings of VoIP as well as basic setup and configuration of an IP telephone system. Emphasis will be given to hands-on skills in the areas of basic setup, automated phone setup voice interfaces, dial-peers, call park, transfer and forward, customized phone display, telephony addressing schemes and voice quality. This course is intended for individuals with CCNA training or certification or equivalent experience. Students will be expected to actively participate in all class activities, course content discussions, hands-on labs, assessments and skills-based assessments. [Transferability: CSU]
CNET 56A  INTRODUCTION TO NETWORK SECURITY 5 Units
Advisory: CNET 54A or equivalent.
May be taken 3 times for credit.
4 hours lecture, 4 hours laboratory.
The course covers industry-wide security topics, including data communication security, infrastructure security, cryptography, access control, authentication, external attack and operational and organization security, security policies, VPNs, and IDS/IPS, and Firewalls. This course is designed to prepare the student for the CompTIA 2008 Security+ Certification Exam. [Transferability: CSU]

CNET 56B  INTRUSION DETECTION, AWARENESS, ANALYSIS & PREVENTION 5 Units
Advisory: CNET 54A, 56A or equivalent.
4 hours lecture, 4 hours laboratory.
Students will apply network security concepts to the management of enterprise network threats, outages and incident response. Students will work in teams to assess risk, identify abnormal occurrences, and propose countermeasures. They will get practice in reporting conclusions and recommendations, creating appropriate security procedures and taking steps to raise security awareness. [Transferability: CSU]

CNET 56C  NETWORK SECURITY PENETRATION TESTING & ETHICAL HACKING 5 Units
Advisory: CNET 56A or equivalent.
May be taken 3 times for credit.
4 hours lecture, 4 hours laboratory, 3 hours terminal time.
This course covers penetration-testing tools and techniques that ethical hackers and security testers use to protect computer networks. This course provides a structured knowledge base for preparing security professionals to discover vulnerabilities and recommend solutions for tightening network security and protecting data from potential attackers. [Transferability: CSU]

CNET 56E  WINDOWS XP/2000/2003 SYSTEM SECURITY 5 Units
Advisory: CNET 54A, 56A, 60A, 60B, 60C, and 60D or equivalent experience.
2 hours lecture, 4 hours lecture-laboratory.
Installing, configuring and maintaining Windows systems from a security standpoint. Understanding systems attacks, Implementing and evaluating Windows security tools in the network. [Transferability: CSU]

CNET 56F  LINUX & UNIX SYSTEM SECURITY 5 Units
Advisory: CNET 56A, CIS 68A, 68B1, 68C1 and 68C2, or equivalent experience.
4 hours lecture, 4 hours laboratory.
Installing, configuring and maintaining Linux systems from a security standpoint. Understanding systems attacks, Implementing and evaluating Linux security tools in the network. [Transferability: CSU]

CNET 56G  THE CERTIFIED INFORMATION SYSTEMS PROFESSIONAL 5 Units
Advisory: CNET 56A or equivalent.
4 hours lecture, 3 hours laboratory.
The course covers industry-wide security topics, including data communication security, infrastructure security, cryptography, access control, authentication, external attack and operational and organization security. This course is designed to prepare the student for the CISSP Certification Exam. [Transferability: CSU]

CNET 56J  FUNDAMENTALS OF COMPUTER FORENSICS 5 Units
Advisory: CNET 116A and 116B.
4 hours lecture, 4 hours laboratory.
Course serves as a foundation class in the study of computer forensics. Topics include: disk concepts, analysis of digital media, data retrieval, data reconstruction, collection of evidence and documentation of a computer crime scene. Hands-on experience with digital forensics tools.

CNET 60E  MICROSOFT WINDOWS 2003 NETWORK DESIGN 5 Units
Advisory: CNET 60E.
4 hours lecture, 2 hours laboratory.
This course provides students with the knowledge and skills necessary to design and implement a Microsoft Windows Server 2003 network infrastructure and Active Directory service in domain, tree, and forest network environments. The course provides the information necessary to pass the Microsoft Certification Exam 70-297, Designing a Microsoft Windows Server 2003 Active Directory and Network Infrastructure. [Transferability: CSU]

CNET 60F  MICROSOFT WINDOWS 2003 EXCHANGE SERVER 5 Units
Advisory: CNET 60E.
4 hours lecture, 2 hours laboratory.
This course provides students with the knowledge and skills necessary to install, configure, administer, and support Microsoft Exchange Server 2003. The course provides the information necessary to pass the Microsoft Certification Exam 70-284, Implementing and Managing Microsoft Exchange Server 2003. [Transferability: CSU]

CNET 60J  WINDOWS SCRIPTING FOR SYSTEM ADMINISTRATORS 5 Units
Advisory: CNET 60A and 60D.
May be taken 3 times for credit.
4 hours lecture, 4 hours terminal time.
This course provides students with the knowledge and skills necessary to write and maintain scripts to automate all aspects of system administration for computers running the Microsoft Windows operating system. It covers scripting languages (the syntax necessary to write a script), scripting hosts (the service which will execute the script), scripting libraries (collections of pre-existing functions which scripts can take advantage of to perform complex tasks) and the interfaces built into the Windows operating system (eg. Windows Management Instrumentation - WMI and Active Directory Services Interfaces - ADSI) which scripts must call in order to manipulate the operating system. This course has been designed for system administrators and does not require an extensive background in programming. [Transferability: CSU]

CNET 60K  POWERSHELL SCRIPTING 5 Units
Advisory: CNET 60A, 60C, 60J.
May be taken 3 times for credit.
4 hours lecture, 4 hours laboratory.
This course provides students with the knowledge and skills necessary to write and maintain Powershell scripts to automate all aspects of system administration for computers running the Microsoft Windows operating system. In addition to basic Powershell concepts such as Cmdlets, Scripts and Pipelining, this course covers the interfaces built into the Windows operating system (eg. Windows Management Instrumentation - WMI and Active Directory Services Interfaces - ADSI) which scripts must call in order to manipulate the operating system. This course has been designed for system administrators and does not require an extensive background in programming. [Transferability: CSU]

CNET 65A  WIRELESS NETWORK ADMINISTRATION 5 Units
Advisory: CNET 50.
4 hours lecture, 2 hours laboratory.
This course provides students with knowledge & skills necessary to install, manage, and support wireless networks. Content includes wireless technology standards, governing bodies, hardware, radio frequency spectrum, antennas, security, site survey, & troubleshooting. [Transferability: CSU]

CNET 65B  WIRELESS NETWORK SECURITY 5 Units
Advisory: CNET 50 and 65A.
4 hours lecture, 2 hours laboratory.
This course provides students with the knowledge and skills necessary to detect intrusion within a wireless network, provide a security policy template to prevent future attacks, and be able to implement a variety of hardware and software security solutions. [Transferability: CSU]
CNET 65C  WIRELESS NETWORK ANALYSIS  5 Units
Advisory: CNET 50 and 65A.
4 hours lecture, 2 hours laboratory.
This course provides students with the knowledge and skills necessary to analyze and troubleshoot wireless networks, as well as LAN systems. Course content includes installation and configuration of a Cisco System Wireless LAN, IEEE 802.11 frame formats, system architecture, protocol analyzers, and performance variables. [Transferability: CSU]

CNET 75A  MICROSOFT WINDOWS VISTA  5 Units
Advisory: CNET 50
4 hours lecture, 2 hours laboratory.
This course provides students with the knowledge and skills necessary to install, configure, administer, and support Microsoft Vista client operating system in workgroup, domain, and multiple domain network environments. The course provides the information necessary to pass the Microsoft Certification Exam, 70-620 Configuring Microsoft Vista Client. [Transferability: CSU]

CNET 75B  WINDOWS SERVER 2008 NETWORK INFRASTRUCTURE  5 Units
Advisory: CNET 50 and 75A.
4 hours lecture, 2 hours laboratory.
This course provides students with the knowledge and skills necessary to install, configure, monitor, and maintain Microsoft Server 2008 network services including DHCP, DNS, WINS, NAP, Print, and Communication servers. Course content includes TCP/IP versions 4 and 6, file systems, security, data backup, and restoration. CNET 75B maps to Microsoft Exam 70-642, Windows Server 2008 Network Infrastructure Configuration. [Transferability: CSU]

CNET 75C  WINDOWS SERVER 2008 ACTIVE DIRECTORY  5 Units
Advisory: CNET 75A and 75B.
4 hours lecture, 2 hours laboratory.
This course provides the knowledge and skills to install, configure, manage, and monitor Windows Server 2008 Active Directory services. Course content includes Domain, Certificate, Federation, Rights Management and Lightweight Directory Services. CNET 75C maps to Microsoft Exam 70-640, Windows Server 2008 Active Directory Configuration. [Transferability: CSU]

CNET 75D  WINDOWS SERVER 2008 APPLICATION PLATFORMS  5 Units
Advisory: CNET 75A and 75B.
4 hours lecture, 2 hours laboratory.
This course covers Windows Server 2008 application platform technologies including IIS 7.0 Web Server, FTP, SMTP, RPC over HTTPS, Terminal Services and Streaming. Course content includes installations, configuration, monitoring, and troubleshooting. CNET 75D maps to Microsoft exam 70-643, Windows Server 2008 Application Platform Configuration. [Transferability: CSU]

CNET 75E  WINDOWS SERVER 2008 SERVER ADMINISTRATOR  5 Units
Advisory: CNET 75B and 75C.
4 hours lecture, 2 hours laboratory.
This course covers the administration, hands-on deployment, and day-to-day operations of a subset of servers in an Enterprise network. Course content includes management of the network infrastructure, Active Directory, application platform servers, remote administration using Terminal Server, scripts, and batch files. CNET 75E maps to Microsoft exam 70-646, Windows Server 2008 Server Administrator. [Transferability: CSU]

CNET 75F  WINDOWS SERVER 2008 ENTERPRISE ADMINISTRATION  5 Units
Advisory: CNET 75C and 75B; CNET 75D.
4 hours lecture, 2 hours laboratory.
This course covers the design, engineering, support, and operations of an Enterprise network. Course content includes network topology, TCP/IP, Active Directory and infrastructure design. Service and policy designs include DNS, NAP, IIS, Terminal Server, Network Load Balancing and Clustering, Certificates, and Group Policy. CNET 75F maps to Microsoft exam 70-647, Windows Server 2008 Enterprise Administrator. [Transferability: CSU]

CNET 75G  WINDOWS VISTA CLIENT ENTERPRISE SUPPORT TECHNICIANS  5 Units
Advisory: CNET 50, 75A.
4 hours lecture, 2 hours laboratory.
This course provides students with the knowledge and skills necessary to deploy, configure, troubleshoot, and maintain Windows Vista clients and applications in a Enterprise network environment. Course content includes desktop operating systems, applications, hardware devices, drivers, network connectivity, and imaging. CNET 75G maps to Microsoft exam, 70-622, Supporting and Troubleshooting Applications on a Windows Vista Client for Enterprise Support Technicians. [Transferability: CSU]

CNET 75I  MICROSOFT WINDOWS 2007 EXCHANGE SERVER  5 Units
Advisory: CNET 75C.
4 hours lecture, 3 hours laboratory.
This course provides students with the knowledge and skills necessary to install, configure, administer, and support Microsoft Exchange Server 2007. The course provides the information necessary to pass the Microsoft Exchange Server Configuration exam, Exam 70-236. [Transferability: CSU]

CNET 76  ELECTRONICS FOR PC & NETWORKING TECHNOLOGY  5 Units
Advisory: Completion of, or concurrent enrollment in electronic mathematics recommended.
3 hours lecture, 2 hours lecture-laboratory.
Introduces a wide spectrum of electronics technology with exposure to equipment commonly used in the electronic facility. Covers the fundamentals of DC and AC, solid-state discrete devices, linear and digital integrated circuits, and an introduction to microprocessors. Designed to complement a computer networking program. Practical examples of common PC electronics. [Transferability: CSU]

CNET 80A  SELECTED TOPICS IN NETWORK TECHNOLOGY  4 Units
Advisory: CNET 54A, 56A, 54M, 54N, 60A or equivalent depending on the topics covered.
May be taken 4 times for credit.
3 hours lecture, 4 hours laboratory.
Introduction to various network operating systems and network technologies as they emerge. [Transferability: CSU]

CNET 80B  SELECTED TOPICS IN NETWORK TECHNOLOGY  5 Units
May be taken 4 times for credit.
4 hours lecture, 4 hours laboratory.
Introduction to various network operating systems and network technologies as they emerge. [Transferability: CSU]

CNET 80C  SELECTED TOPICS IN NETWORK TECHNOLOGY  5 Units
May be taken 4 times for credit.
4 hours lecture, 4 hours laboratory.
Introduction to various network operating systems and network technologies as they emerge. [Transferability: CSU]

CNET 93V  CNET EXPERIENTIAL INTERNSHIP  4 Units
CNET 93W  6 Units
12 hours laboratory for 4 units of credit.
Off-campus supervised experiential education of CNET students in network administration, network security or IT maintenance. Opportunity for practical application of knowledge, skills and abilities acquired in CNET and related course work. Exposure to varied protocols, methodologies and practices in a professional working environment. [Transferability: CSU]

CNET 95A  CABLE INSTALLATION & TERMINATION  2 Units
Advisory: CNET 50.
1 hour lecture, 3 hours laboratory.
Methods and materials used in the installation and termination of network wiring topologies. [Transferability: CSU]
CNET 95G NETWORK TESTING & TROUBLESHOOTING 2 Units
Advisory: CNET 95A or equivalent.
1 hour lecture, 1 hour lecture-laboratory, 3 hours terminal time.
Methods and procedures required to test and troubleshoot systems in local- and wide-area networks. [Transferability: CSU]

CNET 97A A PRACTICUM IN ENTERPRISE SECURITY 7 Units
Advisory: CNET 56A, 54A.
4 hours lecture, 9 hours laboratory.
This course is designed to provide students with classroom and laboratory experience in current and emerging enterprise security technology and issues. Students work in teams to resolve authentic enterprise security tasks, reflect on outcomes, and create security policies and procedures. [Transferability: CSU]

CNET 99 CNET PROJECT 2 Units
1 hour lecture, 3 hours laboratory.
Electronic project construct, test, documentation and reporting contracted with an instructor. [Transferability: CSU]

CNET 112 LEARN TO BUILD YOUR OWN PC 5 Units
Advisory: Familiarity with basic PC operation and Windows XP. May be taken 3 times for credit.
4 hours lecture, 4 hours laboratory.
A survey course designed to prepare students to assemble their own working PC. Step-by-step instructions and guidance will be provided.

CNET 113 HOME TECHNOLOGY INTEGRATOR & COMPTIA/CEDIA INSTALLER I 5 Units
Advisory: Students should have some background in home construction, networking, PCs, audio/visual equipment or electronics. May be taken 3 times for credit.
4 hours lecture, 4 hours laboratory.
A survey course designed to prepare students to pass the CompTIA HTI+ and CEDIA Installer Level I certification exams.

CNET 116A INTRODUCTION TO PC ELECTRONICS & THE COMMAND LINE (A+ PREP) 5 Units
Advisory: MATH 220.
4 hours lecture, 4 hours laboratory.
A comprehensive overview of electronics and of equipment commonly used to test PCs. Presents the fundamentals of DC and AC, solid-state diodes, linear and digital integrated circuits, and microprocessors. Includes hands-on lab circuit building and measuring using a digital multimeter (DMM).

CNET 116B WINDOWS INSTALLATION, UPGRADING & TROUBLESHOOTING (A+ PREP) 5 Units
Advisory: CNET 116A.
4 hours lecture, 4 hours laboratory.
Review of PC hardware and software troubleshooting. Detailed study of installing, upgrading and troubleshooting Windows O/S, in order to pass the A+ certification examinations. Troubleshooting techniques leading to the identification and solution of hardware or software problems. Replacement of system components or peripheral devices.

CNET 118 OTI: WORK SKILLS IN A TECHNICAL SUPPORT ROLE 4 Units
Advisory: Familiarity with microcomputers, Windows 2000 Professional and Windows 2000 server set up; CIS 51A; ENGL 110 and ENGL 100, or ESLL 25 or equivalent.
4 hours lecture.
Basic theory and application of technical support including customer interaction, tools, root cause analysis and problem solving.

CNET 119 BUSINESS SKILLS FOR SERVICE/ SUPPORT & PROJECT MANAGEMENT 4 Units
Prerequisite: Basic computer skills (Word and Excel and, if possible, PowerPoint).
Advisory: MATH 220; ENGL 110 or ESLL 25; CIS 50A, CNET 51A or equivalent.
1.5 hours lecture, 1.5 hours lecture-laboratory, 3 hours team laboratory. Project Management and Service/Support Skills are in high demand in the career marketplace. These include teamwork, decision-making, leadership, innovation, scopeing, planning, budgeting, work breakdown, scheduling, interpersonal/intercultural communication, influence management, and problem solving. Initial exam preparation and training hours for Certified Associate Project Manager (CAPM), various service/support certifications, and Project Management Professional (PMP).

CNET 190 DIRECTED STUDY .5 Unit
CNET 190X 1 Unit
CNET 190Y 1.5 Units
CNET 190Z 2 Units
Non-degree applicable credit course.
Advisory: Pass/No Pass.
Any combination of CNET 190–190Z may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit.
.5 hour lecture, 1.5 hour laboratory for each .5 unit of credit.
Computer projects for students who desire or require additional help in attaining comprehension and competency in learning skills.

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CAST 50 CAREER EXPLORATION USING THE INTERNET 2 Units
Advisory: Familiarity with general computing and email; not open to students with credit in CRLP 90; Pass/No Pass.
May be taken 3 times for credit.
2 hours lecture-laboratory, 3 hours laboratory.
Exploration of high-tech careers using the resources of the Internet. [Transferability: CSU]

CAST 52A INTRODUCTION TO MACROMEDIA FLASH 5 Units
Advisory: CIS 50A or equivalent; COIN 61 and current Internet technologies (Web browsers, common graphics formats, FTP). May be taken 2 times for credit.
2 hours lecture, 2 hours lecture-laboratory, 6 hours laboratory.
Introduction to the Macromedia Flash multimedia authoring environment. Hands-on experience developing streaming Web-based multimedia presentations incorporating animation, sound, graphics and interactivity. [Transferability: CSU]

CAST 52B ADVANCED MACROMEDIA FLASH 5 Units
Advisory: CIS 50A or equivalent; COIN 61 and current Internet technologies (Web browsers, common graphics formats, FTP). May be taken 3 times for credit.
2 hours lecture, 2 hours lecture-laboratory, 6 hours laboratory.
Advanced concepts and techniques of Macromedia Flash. Hands-on experience developing interactive Web-based multimedia presentations incorporating ActionScript, sound and graphics. This course is based on knowledge and principles of Macromedia Flash. [Transferability: CSU]

CAST 52P INTERMEDIATE FLASH: PROJECTS 5 Units
Advisory: CAST 52A, CIS 50A or equivalent.
May be taken 3 times for credit.
2 hours lecture, 2 hours lecture-laboratory, 6 hours laboratory.
This is a projects-based Flash course teaching intermediate concepts and techniques of Macromedia Flash from a designer perspective. Basic programming skills will be acquired by those students who have no programming background but want to continue to develop Web technologies using Flash. Hands-on experience developing interactive Web-based multimedia presentations incorporating ActionScript, sound, and graphics will be taught. This course is based on knowledge and
principles of Macromedia Flash5 or FlashMX and will prepare students to continue with Advanced Flash programming concepts and projects. [Transferability: CSU]

CAST 54A MICROSOFT VISIO 4 Units
Advisory: CIS 50A or equivalent is strongly recommended. May be taken 3 times for credit.
1.5 hours lecture, 1.5 hours lecture-laboratory, 4.5 hours laboratory. This course will provide an introduction to Microsoft Visio, enabling students to produce flow charts, drawings, schematics, and documents used in a variety of technical disciplines. This course is specifically intended to teach the critical concepts and skills of using Visio to produce schematics and drawings for documenting networks, and to process flow charts for designing and documenting software applications for IT and business-related uses. This course is intended for IT technical staff and business professionals. [Transferability: CSU]

CAST 55A INTRODUCTION TO ADOBE GOLIVE 4 Units
Advisory: CIS 50A or equivalent; basic HTML concepts and practice is expected.
1.5 hours lecture, 1.5 hours lecture-laboratory, 4.5 hours terminal time. Introductory concepts and methods of Web page and Web site design using Adobe GoLive. Work with text, graphics, tables and hyperlinks. Smooth integration with other Adobe products including Photoshop and Illustrator. [Transferability: CSU]

CAST 56A INTRODUCTION TO FILEMAKER PRO 4 Units
May be taken 2 times for credit.
1.5 hours lecture, 1.5 hours lecture-laboratory, 4.5 hours terminal time. Introduction to using and designing databases on this popular relational, cross-platform database program. Hands-on experience creating databases structures and interfaces. [Transferability: CSU]

CAST 56B INTERMEDIATE FILEMAKER PRO 4 Units
Advisory: CAST 56A or equivalent. May be taken 3 times for credit.
1.5 hours lecture, 1.5 hours lecture-laboratory, 4.5 hours laboratory. Conceptualizing and designing databases on this popular relational, cross-platform database program. Hands-on experience creating databases structures and interfaces, with special attention given to design objectives, relational theory, scripting methods and complex calculations. This course will provide real-world techniques and best practices for developers, and demonstrate how to take advantage of new features in FileMaker. Students will gain a comprehensive understanding of topics through reading course materials, in-depth discussion, example exercises, and hands-on practice via a self-directed project. [Transferability: CSU]

CAST 58 USING XML SPY 2.5 Units
Prerequisite: COIN 78. Advisory: Familiarity with XML DTDs, schema, XPath, XSL, and XSLT. May be taken 3 times for credit.
1.5 hours lecture-laboratory, 3 hours laboratory. Originally designed to solve the World Wide Web’s compatibility problems, XML (eXtensible Markup Language) promotes the separation of data, presentation, and programming logic, and allows you to define your own elements, and it is platform neutral. XML Spy, a software program by Altova, is an Integrated Development Environment (IDE) for the eXtensible Markup Language. It is the most widely used development tool for XML, including all aspects of XML in one powerful and easy-to-use product. This class is designed to be taught as a workshop in three 6 hour sessions. This hands-on workshop teaches students how to use XML Spy to create, edit, and debug XML documents including schema files and XSL transformations. Starting with a review of XML fundamentals and mark-up, the course moves quickly from validation of XML documents using DTDs and schemas to presentation and transformation of XML documents using style-sheets (XSL and XSLT using the XSLT Designer in XML Spy). Validation (DTDs and Schemas) includes demonstration and hands-on exercises using XML Spy Schema Editor and IE plug-in. Workshop participants will learn how to use Altova’s xmlSpy® S to support modeling, editing, debugging and validating any XML technology, including XML Schema, XSL/XSLT, and SOAP and WSDL as used in Web services, as well as server-side XML and SOAP [Transferability: CSU]

CAST 63A INTRODUCTION TO COMPUTER-AIDED DRAFTING USING AUTODESK AUTOCAD 4 Units
Advisory: Knowledge of drafting fundamentals.
3 hours lecture, 2 hours lecture-laboratory. For students preparing for careers in General Design and Drafting: Architectural Building Design and Engineering; Mechanical Design and Engineering; Civil Design and Engineering; GIS and Mapping; and Visualization and Animation. An introduction to computer graphic systems, equipment and applications using Autodesk software. Special emphasis will be placed on the practical foundation/background to use this software, system and equipment. This course helps to prepare students for Autodesk certification exams. [Transferability: CSU]

CAST 63B ADVANCED COMPUTER-AIDED DRAFTING USING AUTOCAD SOFTWARE 4 Units
Advisory: CAST 63A or equivalent; a working knowledge of parametric solid modeling concepts.
3 hours lecture, 2 hours lecture-laboratory. For students preparing for careers in General Design and Drafting: Architectural Building Design; Mechanical Design and Engineering; Civil Design and Engineering; GIS and Mapping; and Visualization and Animation. This course provides the foundation for a hands-on course that covers basic and advanced AutoCAD software used to create, edit, document, and print parts, assemblies. Special emphasis will be placed on the practical foundation/background to use this software, system and equipment. This course helps to prepare students for Autodesk certification exams. [Transferability: CSU]

CAST 64A INTRODUCTION TO AUTODESK MECHANICAL DESKTOP SOFTWARE (AUTODESK INVENTOR PROFESSIONAL) 4 Units
Advisory: CAST 63A, 63B; knowledge of drafting fundamentals.
3 hours lecture, 2 hours lecture-laboratory. For students preparing for careers in General Design and Drafting: Mechanical Design and Engineering. An introduction to computer graphic systems, equipment and applications using Autodesk software. This course includes 3D design used in parametric solid part modeling, assembly modeling, surface modeling and engineering modeling and output of 2D engineering drawings. Special emphasis will be placed on the practical foundation/background to use this software, system and equipment. This course helps to prepare students for Autodesk certification exams. [Transferability: CSU]

CAST 65A INTRODUCTION TO AUTODESK ARCHITECTURAL DESKTOP SOFTWARE 4 Units
Advisory: CAST 63A; knowledge of drafting fundamentals.
3 hours lecture, 2 hours lecture-laboratory. For students preparing for careers in General Design and Drafting: Architectural Building Design and Engineering. An introduction to computer graphic systems, equipment and applications using Autodesk software. Special emphasis will be placed on the practical foundation/background to use this software, system and equipment. This course helps to prepare students for Autodesk certification exams. [Transferability: CSU]

CAST 66A INTRODUCTION TO AUTODESK CIVIL 3D SOFTWARE 4 Units
Advisory: CAST 63A; knowledge of drafting fundamentals.
3 hours lecture, 2 hours lecture-laboratory. For students preparing for careers in General Design and Drafting: Architectural Building Design and Engineering; GIS and Mapping; and Visualization and Animation. An introduction to computer graphic systems, equipment and applications using Autodesk software. Special emphasis will be placed on the practical foundation/background to use this software, system and equipment. This course helps to prepare students for Autodesk certification exams. [Transferability: CSU]
CAST 70A  INTRODUCTION TO ADOBE PREMIERE  4 Units
Advisory: CIS 50A or equivalent; GID 74 or equivalent.
May be taken 3 times for credit.
1.5 hours lecture, 1.5 hours lecture-laboratory, 3 hours laboratory.
Introduction to digital video and the production of multimedia using various software tools and hardware configurations. Hands-on experience with modeling, rendering, and animation; and prototyping of multimedia projects with software tools. [Transferability: CSU]

CAST 70B  MULTIMEDIA DESIGN & AUTHORING  4 Units
Advisory: CIS 50A or 50B, or equivalent.
1.5 hours lecture, 1.5 hours lecture-laboratory, 3 hours laboratory.
Introduction to the principles of interface design, conceptualization, and prototyping of multimedia projects with software tools. [Transferability: CSU]

CAST 70C  INTERACTIVE MULTIMEDIA PROJECT  4 Units
Advisory: CAST 52A, 70B or equivalent.
May be taken 3 times for credit.
1.5 hours lecture, 1.5 hours lecture-laboratory, 3 hours laboratory.
Completion of interactive multimedia projects, including production, testing, and delivery of an original CD-ROM title, kiosk presentation, or interactive multimedia Web site. [Transferability: CSU]

CAST 70D  3D MODELING & ANIMATION FOR MULTIMEDIA  4 Units
Advisory: CIS 50A or 50B, or equivalent.
May be taken 3 times for credit.
1.5 hours lecture, 1.5 hours lecture-laboratory, 3 hours laboratory.
Fundamentals of 3D modeling and animation for multimedia. Hands-on experience with modeling, rendering, and animation; and conversion techniques utilizing QuickTime and other technologies. [Transferability: CSU]

CAST 70E  INTRODUCTION TO DVD AUTHORING  4 Units
Advisory: CIS 50A or 50B, or equivalent; familiarity with digital video, digital audio, common graphics formats.
May be taken 2 times for credit.
1.5 hours lecture, 1.5 hours lecture-laboratory, 3 hours laboratory.
Introduction to DVD authoring environment. Hands-on experience developing DVD-based multimedia presentations incorporating video, animation, sound, graphics and interactivity. [Transferability: CSU]

CAST 70G  INTRODUCTION TO MACROMEDIA DIRECTOR  5 Units
Formerly: CAST 70B1
May be taken 3 times for credit.
2 hours lecture, 2 hours lecture-laboratory, 4 hours laboratory.
Introduction to the Macromedia Director multimedia authoring environment. Hands-on experience developing interactive multimedia presentations incorporating simple animation, sound, graphics and digital video movies. This course is based on knowledge and principles of multimedia design and authoring. [Transferability: CSU]

CAST 70H  ADVANCED MACROMEDIA DIRECTOR  5 Units
Formerly: CAST 70B2
May be taken 3 times for credit.
2 hours lecture, 2 hours lecture-laboratory, 4 hours laboratory.
Advanced concepts and techniques of Macromedia Director and its use in developing interactive multimedia projects. Software capabilities and limitations; hands-on experience. This course is based on knowledge and principles of multimedia authoring utilizing Macromedia Director. [Transferability: CSU]

CAST 70J  INTRODUCTION TO ADOBE PREMIERE ELEMENTS  3 Units
May be taken 3 times for credit.
1.5 hours lecture, 1.5 hours lecture-laboratory, 3 hours terminal time.
Introduction to digital video and the production of multimedia using software that combines ease of use with a powerful editing tool. Hands-on experience includes creating and editing digital video and integrating video, sound, animation, and graphics into multimedia presentations. Ideal for professionals and business users as well as hobbyists and home users. [Transferability: CSU]

CAST 74G  WEB PUBLISHING TOOLS: DREAMWEAVER  3 Units
Advisory: COIN 60; Familiarity with current Internet technologies (e-mail, Web browsers, common graphics formats, FTP); not open to students with credit in COIN 74.
May be taken 2 times for credit.
1.5 hours lecture, 1.5 hours lecture-laboratory, 3 hours terminal time.
Principles and methods of creating dynamic, ‘fourth generation’ Web sites using the latest Web technologies: JavaScript, Cascading Style Sheets, Java, audio, video and animation plug-ins. Techniques of authoring Web pages for different browsers and different end use platforms. Principles of designing and maintaining efficient and successful Web sites. [Transferability: CSU]

CAST 80  SELECTED TOPICS IN SOFTWARE APPLICATIONS  4 Units
May be taken 3 times for credit.
1.5 hours lecture, 1.5 hours lecture-laboratory, 3 hours laboratory.
Introduction to various software application technologies as they emerge. [Transferability: CSU]

CAST 86A  INTRODUCTION TO ADOBE INDESIGN  4 Units
Advisory: CIS 50A or equivalent.
1.5 hours lecture, 1.5 hours lecture-laboratory, 3 hours laboratory.
Introduction to various software application technologies as they emerge. [Transferability: CSU]

CAST 86B  ADVANCED ADOBE INDESIGN  4 Units
Advisory: CAST 86A.
May be taken 3 times for credit.
1.5 hours lecture, 1.5 hours lecture-laboratory, 3 hours laboratory.
Advanced Adobe InDesign is an exploration of the advanced concepts of InDesign in document management, page layout, online and printing applications. Hands-on experience of these concepts. [Transferability: CSU]

CAST 89A  INTRODUCTION TO QUARKXPRESS  4 Units
Advisory: CIS 50A or equivalent.
May be taken 3 times for credit.
1.5 hours lecture, 1.5 hours lecture-laboratory, 3 hours laboratory.
Introduction to QuarkXPress and its use in electronic layout and print media problem solving. Hands-on experience with the basic elements and tools of QuarkXPress. [Transferability: CSU]

CAST 89B  ADVANCED QUARKXPRESS  4 Units
Advisory: CAST 89A or equivalent.
May be taken 3 times for credit.
1.5 hours lecture, 1.5 hours lecture-laboratory, 3 hours laboratory.
Advanced concepts and methods of QuarkXPress and its use in electronic layout, print media, and problem solving. Software capabilities and limitations; hands-on experience. [Transferability: CSU]

CAST 90A  INTRODUCTION TO ADOBE ILLUSTRATOR  4 Units
May be taken 3 times for credit.
1.5 hours lecture, 1.5 hours lecture-laboratory, 3 hours laboratory.
Introduction to Adobe Illustrator, a software drawing tool. Hands-on experience with various software tools and hardware configurations. [Transferability: CSU]
CAST 90B ADVANCED ADOBE ILLUSTRATOR 4 Units
Advisory: CAST 90A or equivalent.
May be taken 3 times for credit.
1.5 hours lecture, 1.5 hours lecture-laboratory, 3 hours laboratory.

CAST 91A INTRODUCTION TO PAINTER 4 Units
Advisory: CIS 50A or equivalent.
May be taken 3 times for credit.
1.5 hours lecture, 1.5 hours lecture-laboratory, 3 hours laboratory.
An introduction to Painter software and its use in image-making and image-editing problem solving; hands-on software experience with the basic elements and tools of Painter. [Transferability: CSU]

CAST 91B ADVANCED PAINTER 4 Units
Advisory: CAST 91A or equivalent.
May be taken 3 times for credit.
1.5 hours lecture, 1.5 hours lecture-laboratory, 3 hours laboratory.
Advanced concepts and methods of Painter and its use in image-making, image-editing, and problem solving. Software capabilities and limitations; hands-on experience. [Transferability: CSU]

CAST 92A INTRODUCTION TO ADOBE PHOTOSHOP 4 Units
May be taken 3 times for credit.
1.5 hours lecture, 1.5 hours lecture-laboratory, 3 hours laboratory.
Introduction to Adobe Photoshop, an image processing software tool. Hands-on experience with the basic elements and tools to set up files, manage documents, and perform basic image processing. [Transferability: CSU]

CAST 92B ADVANCED ADOBE PHOTOSHOP 4 Units
May be taken 3 times for credit.
1.5 hours lecture, 1.5 hours lecture-laboratory, 3 hours laboratory.
Advanced concepts and methods of Adobe Photoshop and its use in developing images and creating special effects and problem solving. Software capabilities and limitations; hands-on experience. [Transferability: CSU]

CAST 92E INTRODUCTION TO ADOBE PHOTOSHOP ELEMENTS 4 Units
May be taken 3 times for credit.
1.5 hours lecture, 1.5 hours lecture-laboratory, 3 hours laboratory.
Introduction to Adobe Photoshop Elements, an image management (organizing) and editing software tool. Hands-on experience with the basic features and tools to set up files, manage documents, and perform basic image processing. [Transferability: CSU]

CAST 93A POWERPOINT: EFFECTIVE PRESENTATIONS 4 Units
Advisory: CIS 50A.
1.5 hours lecture, 1.5 hours lecture-laboratory, 3 hours laboratory.
Provides the student with a step-by-step approach to developing efficient and effective presentations using an assortment of presentation media. The dual focus is on the development and delivery of presentation content and the use of sophisticated computer applications for effective presentations. Topics include organizing the presentation, developing content, use of presentation applications such as Powerpoint and Astound, putting a presentation on the Web and other presentation delivery techniques. [Transferability: CSU]

CAST 102 COMPUTER KEYBOARDING SKILLS .5 Unit
Advisory: Pass/No Pass; not open to students with credit in CIS 102.
1 hour lecture-laboratory.
Beginning keyboarding course covering the operation of the keyboard using the touch system and the development of correct techniques to interact more efficiently with desktop computers, computer terminals or electronic communication systems. Designed for independent skill learning. [Transferability: CSU]

CAST 102B MICROSOFT WINDOWS: BASICS 4 Units
May be taken 2 times for credit.
1.5 hours lecture, 1.5 hours lecture-laboratory, 3 hours laboratory.
An overview of computer hardware, software and operating systems concepts. Shows the use of help, launching applications, managing files and folders with Explorer and My Computer as well as handling disk maintenance.

CAST 102C WINDOWS: HARD DISK MANAGEMENT & UTILITIES 3 Units
1.5 hours lecture, 1.5 hours lecture-laboratory, 1.5 hours laboratory.
The dual focus is on the hard disk management and the use of utility software; virus software, software installation and peripherals.

CAST 102E PC: VIRUS PROTECTION 3 Units
1.5 hours lecture, 1.5 hours lecture-laboratory, 1.5 hours laboratory.
Introduction to virus protection, detection, and repair for DOS and Windows microcomputer systems. Hands-on experience with installation and maintenance of selected virus software packages.

CAST 104A MICROSOFT WORD I 3 Units
Advisory: CIS 50A.
May be taken 4 times for credit.
1.5 hours lecture, 1.5 hours lecture-laboratory, 1.5 hours terminal time.
Hands-on experience, including formatting, editing, saving, and printing letters, memos and other short documents, with an introduction to the spelling checker and use of the thesaurus.

CAST 104B MICROSOFT WORD II 3 Units
Advisory: CAST 50A or equivalent; CAST 104A or equivalent.
May be taken 4 times for credit.
1.5 hours lecture, 1.5 hours lecture-laboratory, 1.5 hours laboratory.
Continuation of MS Word. Hands-on experience with Word and its use in file management, the creation of tables, forms, brochures, and newspaper columns; as well as exporting files into Desktop Publishing Packages.

CAST 107 INTRODUCTION TO EXCEL 3 Units
Advisory: CIS 50A.
May be taken 4 times for credit.
1.5 hours lecture, 1.5 hours lecture-laboratory, 1.5 hours laboratory.
Hands-on introduction to Excel and its use in creating worksheets, graphs, formulas, functions, formatting, web queries, what-if analysis, charting, working with large worksheets, creating web pages, financial functions, data tables, amortization schedules, creating/sorting/querying tables, creating templates, working with multiple worksheets/workbooks, applying SmartArt and images to worksheets, and working with databases across various microcomputer platforms.

CAST 107D EXCEL: BASICS 3 Units
Advisory: CIS 50A.
May be taken 4 times for credit.
1.5 hours lecture, 1.5 hours lecture-laboratory, 1.5 hours laboratory.
Hands-on introduction to Excel and its use in creating worksheets, graphs, formulas, functions, formatting, web queries, what-if analysis, charting, working with large worksheets, creating web pages, financial functions, data tables, amortization schedules, creating/sorting/querying tables, creating templates, working with multiple worksheets/workbooks, applying SmartArt and images to worksheets, and working with databases across various microcomputer platforms.

CAST 109F USING ACCESS 3 Units
Advisory: CIS 50A or equivalent.
1.5 hours lecture, 1.5 hours lecture-laboratory, 1.5 hours laboratory.
Introduction to Microsoft Access, a relational database management software tool. [Transferability: CSU]
CAST 190  DIRECTED STUDY  .5 Unit
CAST 190X  1 Unit
CAST 190Y  1.5 Units
CAST 190Z  2 Units
Non-degree applicable credit course.
Advisory: Pass/No Pass.
Corequisite: Concurrent enrollment in a computer science class or enrollment in any class requiring computer usage.
Any combination of CAST 190–190Z may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit.
.5 hour lecture, 1.5 hour laboratory for each .5 unit of credit.
Computer projects for students who desire or require additional help in attaining comprehension and competency in computer skills.

CAST 200A  INTRODUCTION TO MICROSOFT OFFICE  1 Unit
Non-degree applicable credit course.
1 hour lecture.
Introduction to MS Office and its use in problem solving. Office capabilities and limitations; hands-on experience with the Office interface, Word, Excel and Power Point©.

CAST 203A  MICROSOFT WINDOWS BASICS  1 Unit
Non-degree applicable credit course.
1 hour lecture.
Introduction to MS Windows and its use in problem solving. Windows graphical user interface capabilities and limitations; hands-on experience.

CAST 204A  MICROSOFT WORD BASICS  1 Unit
Non-degree applicable credit course.
1 hour lecture.
Hands-on experience, including formatting, editing, saving, and printing letters, memos, and other short documents, with an introduction to MS Word tools.

CAST 206A  PC CONSTRUCTION & OPERATION  1 Unit
Non-degree applicable credit course.
Advisory: Not open to students with credit in PCS 111.
1 hour lecture.
Learn how to assemble and maintain your own PC-compatible computer; hands-on experience. Intended for continuing education.

CAST 207A  PC HARD DISK MANAGEMENT  1 Unit
Non-degree applicable credit course.
Advisory: Not open to students with credit in CAST 102C.
1 hour lecture.
Learn how to manage your hard drive effectively; hands-on experience. Intended for continuing education.

CAST 221  OVERVIEW OF ADOBE PHOTOSHOP  1 Unit
Non-degree applicable credit course.
Advisory: Not open to students with credit in CAST 92A.
1 hour lecture.
Hands-on experience with the basic elements and tools of Photoshop to set up files, manage documents, and perform basic image processing. Intended for continuing education.

CAST 222A  INTRODUCTION TO PRESENTATION SOFTWARE: POWERPOINT  1 Unit
Non-degree applicable credit course.
1 hour lecture.
Introduction to presentation software using Microsoft PowerPoint hands-on experience to produce text, graphic, chart and graph images for professional presentations.

CAST 230L  OVERVIEW OF MULTIMEDIA  .5 Unit
Non-degree applicable credit course.
.5 hour lecture.
Introduction to the various components of multimedia and the production process, and various software tools and hardware systems. Hands-on experience various software to integrate text, graphics, animation, sound and movies.

CAST 232A  MACROMEDIA DIRECTOR I  1 Unit
Non-degree applicable credit course.
Advisory: CAST 200A or equivalent.
1 hour lecture.
Macromedia Director is a 2D animation and authoring tool for interactive multimedia applications. Create, combine and synchronize animation, graphics and text with audio and video. Add interactivity to your presentations using buttons and scripts. Intended for continuing education.

CAST 240A  MICROSOFT ACCESS BASICS  1 Unit
Non-degree applicable credit course.
Advisory: Not open to students with credit in CAST 109F.
1 hour lecture.
Introduction to Access, a relational database tool; hands-on experience. Intended for continuing education.

CAST 241A  MICROSOFT EXCEL: WORKSHEETS  1 Unit
Non-degree applicable credit course.
Advisory: Not open to students with credit in CAST 107A.
1 hour lecture.
Introduction to basic worksheet concepts and commands of Excel, including creation and modification of worksheets, use of simple formulas and development of basic charts. Intended for continuing education.

CAST 242A  MICROSOFT EXCEL: DATABASES  1 Unit
Non-degree applicable credit course.
Advisory: CAST 241A or equivalent; not open to students with credit in CAST 107B.
1 hour lecture.
Introduction to basic database concepts and commands of Excel, including the creation, sorting, and searching of databases. Intended for continuing education.

CAST 243A  MICROSOFT EXCEL: CHARTS & MACROS  1 Unit
Non-degree applicable credit course.
Advisory: CAST 242A or equivalent; not open to students with credit in CAST 107C.
1 hour lecture.
Introduction to graph and macro concepts and commands of Excel, including the creation and customizing of various charts and macros. Intended for continuing education.

CAST 250  FUNDAMENTALS OF PC NETWORKING  1 Unit
Non-degree applicable credit course.
1 hour lecture.
Introduction to the concepts underlying networking IBM PCs, DOS, and Windows-based computers. Intended for continuing education.

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www.foothill.edu/ctis/

COIN 51  INTERNET TECHNOLOGY & APPLICATIONS: INTRODUCTION  5 Units
Advisory: CIS 50A or equivalent, or familiarity with UNIX.
May be taken 2 times for credit.
4 hours lecture, 4 hours laboratory.
Using the Internet to connect and communicate over the World Wide Web and e-mail, retrieve current useful information using searching tools, prepare a simple HTML Web page, locate Internet resources to find software and answers to troubleshooting problems and use evolving Internet technologies and resources. [Foothill GE: Lifelong Understanding; Transferability: CSU]
COIN 53 LEARNING WITH ETUDES 2 Units
Advisory: Familiarity with an Internet Browser and E-mail.
1 hour lecture, 2 hours laboratory.
This course covers what it takes to be successful in an online course; how to use the tools of an ETUDES-NG online course; aspects on online communication; online discussions; submitting online assignments; posting attachments; taking online tests, quizzes and surveys; monitoring your progress; understanding the challenges of an online environment; and figuring out if online learning is for you. [Transferability: CSU]

COIN 53A INTRODUCTION TO ETUDES 2 Units
May be taken 3 times for credit.
2 hours lecture.
This online course offers an overview of the core tools and basic functionality of ETUDES-NG a collaboration, teaching, and learning environment. ETUDES-NG offers a complete set of tools to help instructors develop, deliver, supplement, and manage courses over the Internet. A hands-on learning experience, this course takes participants through a step-by-step process to learn best uses of the core tools of the system to support teaching and learning. Participants read tutorials, participate in discussions, and apply the skills taught in a practice site. Additionally, they share best practices and reflect on good uses of the tools. [Transferability: CSU]

COIN 56 E-BUSINESS 5 Units
Advisory: CIS 50A or equivalent; COIN 61 or equivalent; familiarity with Internet commerce and E-business; Internet connectivity.
May be taken 3 times for credit.
4 hours lecture, 3 hours laboratory.
Foundations and principles of electronic commerce and doing business on the Internet. Topics include business models, value and supply chains, business strategy, electronic data interchange (EDI), electronic payments & digital currency, integrating channels of business (walk-in, mail, phone, Internet), e-marketing, intranets and extranets, security risks and legal issues in e-commerce, and Electronic Document Management Systems (EDMS). Current topics about latest e-business trends will be discussed, including peer-to-peer commerce, public and private exchanges, e-hubs and e-marketplaces, technology trends in enterprise computing including Web services and knowledge management, and global e-commerce and development considerations. [Transferability: CSU]

COIN 58 ELECTRONIC COMMERCE PROJECTS 5 Units
Advisory: COIN 51 and 56 or equivalent; familiarity with Internet commerce and business models strongly recommended.
May be taken 3 times for credit.
3 hours lecture, 6 hours laboratory.
Principles and methods of setting up a functional electronic commerce site on the World Wide Web. Upon completion of a class project estimated to take 40 to 60 hours to complete, students will be able to select software and commerce service providers for creating a Web site with searchable inventory and capable of processing orders and accepting payment, and will create a functional Web store business plan for designing, building, launching, and marketing a WWW commerce site. [Transferability: CSU]

COIN 61 PUBLISHING ON THE WEB USING HTML/XHTML 5 Units
Advisory: CIS 50A or equivalent; COIN 51.
May be taken 3 times for credit.
4 hours lecture, 4 hours laboratory.
Introduction to electronic publishing on the Web using HTML and XHTML. Students will produce a multi-page Web site with image, text, and links; tables, frames, forms and simple multimedia. Uploading and modifying documents to a web server, interacting with a client, and planning, designing, testing and maintaining a Web site will also be emphasized. This course is based on knowledge of navigating the Internet and browsing the Web. [Transferability: CSU]

COIN 63 ADVANCED TOPICS IN WEB PUBLISHING 5 Units
Advisory: CIS 50A, COIN 51 or equivalent, and COIN 61.
May be taken 3 times for credit.
4 hours lecture, 4 hours laboratory.
Exploration of advanced technologies in Web publishing which work with Hypertext Mark-up Language (HTML) and electronic publishing on the Web. Hands-on experience in producing a multi-page Web site using technologies such as Cascading Style Sheets, Multimedia, Dynamic HTML, XML, CGI, JavaScript and other relevant technologies; uploading and modifying Web documents to a Web server; interacting with a client; planning, designing, testing and maintaining a web site. This course is based on knowledge of navigating the Internet and browsing the Web, and prior experience coding in basic HTML. [Transferability: CSU]

COIN 65 USING CASCADING STYLE SHEETS FOR DESIGN 5 Units
Advisory: COIN 61 and 63 strongly advised.
May be taken 2 times for credit.
4 hours lecture, 4 hours laboratory.
Cascading Style Sheets (CSS) have changed the focus of web development from presentation to structure. This class will discuss separating web content from formatting so that the resulting markup will render more quickly and, through the use of CSS, be presented in a variety of user agents. The class is designed for students who intend to pursue a web development career or for those who want a more advanced understanding of web site creation to enhance their own work or career path. Basic concepts include XHTML markup, methods of styling a document, CSS syntax, fonts and text, positioning elements, basic and advanced page layout and interface components. [Transferability: CSU]

COIN 66 APACHE WEB SERVER MANAGEMENT 5 Units
Advisory: COIN 70A and CIS 68A or equivalent strongly recommended; familiarity with the concept of web servers, HTTP, browsers, protocols, scripting, basic and other Internet-related subjects.
May be taken 2 times for credit.
4 hours lecture, 3 hours laboratory.
Practices and procedures in the installation, operation, maintenance, and security of a World Wide Web server. [Transferability: CSU]

COIN 67 RUBY ON RAILS - WEB APPLICATION DEVELOPMENT 5 Units
Advisory: Prior programming experience; CIS 52A or database experience.
4 hours lecture, 4 hours laboratory.
Introduction to web application development with Ruby on Rails. Students learn how to create database-driven web applications using the Ruby language and the Rails framework. [Transferability: CSU]

COIN 70A INTRODUCTION TO PROGRAMMING USING JAVASCRIPT 5 Units
Advisory: COIN 63.
May be taken 3 times for credit.
4 hours lecture, 4 hours laboratory.
An introduction to computer programming using the JavaScript language. Students will receive a strong foundation of understanding and practice with basic programming concepts including problem solving strategies and syntax including data types, variables, functions, events, control structures, arrays, strings, dates and math and basic form validation. The class is designed for students who intend to pursue careers in web programming or web administration or those who want a basic understanding of programming to enhance other web-related career paths. No prior programming experience is required or expected. [Transferability: CSU]

COIN 70B USING JAVASCRIPT 5 Units
Advisory: COIN 63 and 70A or prior experience with an object oriented programming language (C/C++/JAVA).
May be taken 3 times for credit.
4 hours lecture, 4 hours laboratory.
Using JavaScript to create interactive web sites by taking advantage of the Document Object Model (DOM), dynamic creation of content, advanced forms processing, window/frame manipulation, cookies, shopping carts,
COIN 71 APPLICATION SOFTWARE DEVELOPMENT WITH AJAX
Advisory: COIN 61, COIN 70A or 70B and 78. May be taken 2 times for credit.
4 hours lecture, 4 hours laboratory.
JavaScript and XML are used to create highly interactive Web sites that function like desktop applications. You will learn to write advanced JavaScript programs that request XML data from the server “on the fly”, and you will learn to use an existing framework to implement a complex design. Software engineering principles will be stressed, including separating the content from the presentation, programming style and documentation. [Transferability: CSU]

COIN 72 WEB MARKETING
Advisory: CIS 50A or equivalent; COIN 51, 56, and 61 or equivalent. May be taken 3 times for credit.
1.5 hours lecture, 1.5 hours lecture-laboratory, 3 hours laboratory time.
Marketing concepts and theories on how to market and advertise your web site effectively on the Internet. Classroom critiques of your site, fine tuning to compete with successful online business models. [Transferability: CSU]

COIN 74 WEB PUBLISHING TOOLS: DREAMWEAVER
Advisory: COIN 61 or equivalent; familiarity with current Internet technologies (e-mail, Web browsers, common graphics formats, FTP); not open to students with credit in CAST 74G. May be taken 2 times for credit.
4 hours lecture, 3 hours laboratory.
Principles and methods of creating dynamic ‘fourth-generation’ Web sites using the latest Web technologies: JavaScript, Cascading Style Sheets, Java, audio, video and animation plug-ins. Techniques of authoring Web pages for different browsers and different end user platforms. Principles of designing and maintaining efficient and successful Web sites. [Transferability: CSU]

COIN 74A WEB PUBLISHING TOOLS: DREAMWEAVER BASICS
Advisory: CIS 50A, COIN 51 and 61 strongly advised. May be taken 2 times for credit.
2 hours lecture, 2 hours lecture-laboratory, 3 hours laboratory.
An introduction to the Dreamweaver environment including principals and methods of planning, designing and creating successful web sites. The class is designed for students who intend to pursue a Web development career or for those who want a basic understanding of web site creation to enhance their own work or career path. Basic concepts include creating a basic web site, remote site access (FTP), text formatting and manipulation, linking, cascading style sheets, graphics (including image maps, rollovers and navigation bars), tables and layout, layers, frames and site marketing using metadata. Techniques of authoring, maintaining and testing for different users, browsers and platforms will be discussed. [Transferability: CSU]

COIN 74B WEB PUBLISHING TOOLS: DREAMWEAVER INTERACTIVE
Advisory: CIS 50A, COIN 51, 61 and 74A strongly advised; COIN 70B or an understanding of a programming language. May be taken 2 times for credit.
2 hours lecture, 2 hours lecture-laboratory, 3 hours laboratory.
A more in-depth look at the Dreamweaver environment including principals and methods of planning and creating successful interactive web sites. The class is designed for students who intend to pursue a Web development career or for those who want a more in-depth understanding of the more advanced features of Dreamweaver to enhance their own work or career path. Advanced interactive concepts include client interactions, thorough understanding of the use and issues involved with cascading style sheets, collaborative development, table layout, interactive forms, layers, Dreamweaver behaviors, rich media additions, reusable assets and site marketing. Advanced XHTML and XML practice including RSS feeds, Google XML site maps, and creating and editing XML documents is also reviewed. Techniques of authoring, maintaining and testing for different users, browsers and platforms will be emphasized. A good working knowledge of Dreamweaver 8 and or Studio 8 is expected. [Transferability: CSU]

COIN 74C WEB PUBLISHING TOOLS: DREAMWEAVER INTERACTIVE II
Advisory: COIN 61, 74A and 74B strongly advised. May be taken 2 times for credit.
2 hours lecture, 2 hours lecture-laboratory, 3 hours laboratory.
An advanced exploration of the Dreamweaver environment, and database integration. The class is designed for students who intend to pursue a Web development career and for those who want an in-depth understanding of web site creation to enhance their work or career path. Concepts investigated include adding interactivity through the use of media objects, database functionality and dynamic pages techniques of authoring, maintaining and testing for different users, accessibility and browsers and platforms will be discussed. [Transferability: CSU]

COIN 76 WEB PUBLISHING TOOLS: MULTIMEDIA
Advisory: CIS 50A, COIN 51 and 61. May be taken 3 times for credit.
4 hours lecture, 4 hours laboratory.
Fundamentals of a variety of multimedia publishing tools which may include Flash, Photoshop/Elements, Adobe Acrobat, sound and/or video digitizing software and video editing and processing software. Hands-on experience in producing validated Web pages which utilize these technologies. This course is based on knowledge of the Internet, XHTML, and Web publishing. [Transferability: CSU]

COIN 78 EXTENSIBLE MARKUP LANGUAGE (XML)
Advisory: COIN 61 or equivalent; working knowledge of HTML. May be taken 3 times for credit.
4 hours lecture, 4 hours laboratory.
Introduction to Extensible Markup Language (XML) and document structuring. Hands-on exercises developing XML documents, validation with Document Type Definition (DTD) and XML schema (XSD), and data presentation with Extensible Style Language (XSL) and Cascading Style Sheets (CSS). Survey of recommended XML documents including XHTML, and a brief introduction to RSS, RDF, and XML sitemaps. [Transferability: CSU]

COIN 78B INTERNET PROGRAMMING WITH XML
Advisory: COIN 78; familiarity with HTML, JavaScript and JAVA or C# programming language, SQL and XML. May be taken 3 times for credit.
4 hours lecture, 4 hours laboratory.
Advanced topics in Internet programming focusing on the use and integration of XML, DHTML, AJAX, Java/.NET and database technologies for Web 2.0 application development. This course is intended for students in the Internet programming discipline and professionals who need to develop hands-on programming skills specifically for integrating XML with other technologies and development of Web Services, including the use of REST, SOAP, WSDL, and UDDI. [Transferability: CSU]

COIN 78C XML FOR INFORMATICS
Advisory: COIN 78. May be taken 3 times for credit.
3 hours lecture, 1 hour lecture-laboratory, 4 hours laboratory.
The World Wide Web is transitioning from a content Web, to a process Web to a knowledge Web. This course introduces the Semantic Web and Semantic Web technologies to students with a firm command of XML and an interest in knowledge engineering. Topics include RSS, RDF, RDDL, Ontologies and Taxonomies, Concept Maps, and XML topic maps. Students will integrate an RSS feed into a blog, build a machine readable XML meta data document, and create a small XML topic map from an ontology, taxonomy, and concept map. This course provides a firm understanding of the Semantic Web initiative, including current activities in RDF (Rapid Knowledge Formation), DAML, and Web based inference and ontology engines. [Transferability: CSU]
COIN 79D  USER INTERFACE DESIGN WITH EXPRESSION BLEND  5 Units
Advisory: CIS 19M, COIN 78. May be taken 3 times for credit.
4 hours lecture, 4 hours laboratory.
Expression Blend is a new tool from Microsoft for designing both Windows and Web user interfaces using XAML, an XML derivative. Blend seamlessly permits the incorporation of audio, video, 2D and 3D vector art, bitmap images and animations into stunning user interfaces. Through data binding and other markup extensions, XAML permits the implementation of a considerable degree of functionality without requiring a full fledged programming language such as C#. At the same time, Blend is able to totally coordinate with Visual Studio so that the same project can be worked on simultaneously by a designer using Blend and by a C# developer using Visual Studio. Blend will ultimately be used both by professional user interface designers and by developers for most WPF (Windows Presentation Foundation) UIs since its feature set for design purposes is considerably richer than the equivalent designer in Visual Studio. [Transferability: CSU]

COIN 79  XML FOR BIOINFORMATICS  5 Units
Advisory: COIN 51 or equivalent; BTCE 51A and 52A. May be taken 3 times for credit.
4 hours lecture, 4 hours laboratory.
Introduction to mark-up languages, including HTML and XML, as a method of gaining practical experience and learning the fundamentals of BIOML (BIOploymer Markup Language). This course is intended for students in the bioinformatics discipline who need to understand mark-up languages for encapsulating, transmitting, and presenting biological data on the World Wide Web, with special emphasis placed on interaction and collaboration with bioinformatics databases, and rendering bioopolymer data with BIOML. [Transferability: CSU]

COIN 80  SELECTED TOPICS IN INTERNET TECHNOLOGY  4 Units
Advisory: COIN 63. 1.5 hours lecture, 1.5 hours lecture-laboratory, 3 hours laboratory. Introduction to various Internet technologies and Web development tools. [Transferability: CSU]

COIN 81  INTRODUCTION TO BIOINFORMATICS  5 Units TOOLS & DATABASES
Prerequisite: Knowledge of molecular biology. Advisory: COIN 51 or equivalent; BTCE 51A and 52A. May be taken 3 times for credit.
4 hours lecture, 3 hours laboratory.
This practical course provides an introduction to Internet databases, tools and methods used in bioinformatics, emphasizing genomic and protein databases including NCBI, GenBank, UniProt, SWISS-PROT, SWISS-MODEL, PDB, PIR, and Pfam. Course focus on the practical use of bioinformatics tools and databases to explore the genome, proteome, and transcriptome in applied problem spaces. The use of BioPerl modules is introduced a method to interrogate bioinformatics data. XML data formats including BSML and MAGE-ML are demonstrated. Lab exercises focus on software tools including BLAST and Smith-Waterman for methods of aligning and comparing sequences, and SWISS-MODEL and The Protein Data Bank for protein structure modeling. Statistical analysis of bioinformatics includes hypothesis testing and problem posing. Current topics including microarray technology for measuring gene expression are also introduced. A working knowledge of both key concepts and vocabulary used in molecular biology is strongly encouraged. Experience with markup languages and programming is useful but not required. [Transferability: CSU]

COIN 82  IMAGES FOR THE WEB  4 Units
Advisory: CAST 92A or equivalent. May be taken 3 times for credit.
3 hours lecture, 3 hours laboratory.
Image preparation and design for the Web using Photoshop and other tools. Image acquisition and correction, conversion and optimizing images for the Web with application to various browsers. Software capabilities and limitations; hands-on experience. [Transferability: CSU]

COIN 83  SOCIAL COMPUTING IN A GLOBAL CONTEXT  5 Units
Advisory: Internet Technology, social and/or behavioral science (sociology/psychology). May be taken 3 times for credit.
3 hours lecture, 2 hours lecture-laboratory, 3 hours laboratory.
Introduction to the field of social computing, social networking, and collaboration tools and process. Emphasis on human and social interactions mediated by technology networks, and engineering and optimization of high performance workgroups, especially in addressing complex social and environmental problems. Overview of Web 2.0 tools, social portals, and current Internet technology, and the benefits of social collaboration tools in local and global problem solving. Introduction to the field of social computing and social network analysis, and implementation of effective collaboration tools and process, including workflow and workgroups. Course work will include developing and applying social networking tools and strategy as part of a local (or global) community problem or issue. A key learning outcome of this interdisciplinary course is developing a working understanding of collaboration as both a core competency and practice for effective social development. [Transferability: CSU]

COIN 88  USING UML FOR WEB APPLICATION DEVELOPMENT  4 Units
Advisory: Object oriented programming course (Java recommended); hands-on use of Microsoft Visio; CIS 60 or equivalent. May be taken 3 times for credit.
1.5 hours lecture, 1.5 hours lecture-laboratory, 3 hours laboratory. This course will provide a basic understanding of visual modeling tools and methods for software application development, focusing on the Unified Modeling Language (UML), Microsoft Visio, Visual Studio, and/or specific industry applications (Rational Rose) will be used to model Web-deployed software applications. Special emphasis will be placed on understanding business process requirements gathering and effective modeling techniques using the UML. [Transferability: CSU]

COIN 93U  COIN EXPERIENTIAL INTERNSHIP  3 Units
COIN 93V  4 Units
COIN 93W  6 Units
May be taken 6 times for credit.
3 hours laboratory for each unit of credit. Off-campus supervised experiential education of COIN students in web site creation, E-business, or Web site maintenance. Opportunity for practical application of knowledge, skills and abilities acquired in COIN and related course work. Exposure to varied protocols, methodologies and practices in a professional working environment. [Transferability: CSU]

COOPERATIVE WORK EXPERIENCE EDUCATION
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<tr>
<th>Course Code</th>
<th>Description</th>
<th>Units</th>
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<tr>
<td>CWE 55</td>
<td>OCCUPATIONAL WORK EXPERIENCE</td>
<td>1 Unit</td>
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<td>CWE 55A</td>
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<td>CWE 55B</td>
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<td>CWE 55C</td>
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<td>CWE 55D</td>
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<td>CWE 55G</td>
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Formerly: CWE 51X,Y,Z
Prerequisite: Student must be working in a job related to a declared occupational, vocational, or educational goal. 50 hours of paid employment for each unit of credit is required.
Any combination of 24 units for credit, however, no single course may be taken more than 6 times for credit.
5 hours laboratory for each unit of credit.
The CWE Program promotes on-the-job learning experiences for a student employed in a job related vocational, occupational or educational major. The program reinforces students to apply academic knowledge and theory gained from college course work to the workplace. The work
experience will increase the students’ awareness of cultural, global, and generational diversity in the work environment in addition to building communication, problem solving, interpersonal and transferable skills. A proactive approach towards a students’ career decision making process will be implemented by the development of concrete and measurable learning objectives. [Transferability: CSU]

CWE 55X GENERAL WORK EXPERIENCE 2 Units
CWE 55Y 3 Units
Formerly: CWE 70X,Y
Advisory: Student must be currently employed and obtain approval of Work Experience instructional personnel. Corequisite: Concurrent enrollment in at least 7 units, including Work Experience (Fall, Winter and Spring quarters), or at least one other course during Summer Session.
Any combination of CWE 70 series courses may be taken for a maximum of 9 units, not to exceed 24 units total of any Cooperative Work Experience courses.
50 hours of paid employment for each unit of credit. Students will acquire and identify transferable skills gained under actual working conditions. Students will develop understanding, appreciation and respect for work and workers. Through holding a job, fulfilling work-related assignments and participating in on-campus activities, students are assisted in the process of developing a concept of self and understanding their role in the work world and setting realistic goals. An assigned faculty coordinator helps the student focus on the job skills necessary for transition into a chosen career. [Transferability: CSU]

CWE 56A OCCUPATIONAL WORK EXPERIENCE: 2 Units
CWE 56B COMMUNITY SERVICE 3 Units
CWE 56C 4 Units
CWE 56D 5 Units
CWE 56E 6 Units
CWE 56G 8 Units
Prerequisite: Student must be volunteering in a non-profit organization. 40 hours of volunteer work per quarter for each unit of credit. Any combination of CWE 55, 55A–G and 56A–G may be taken for a maximum of 24 units for credit, however, no single course may be taken more than 6 times for credit.
80 hours of volunteered employment. The course promotes community service/volunteering learning in a supervised setting within a community agency. The community service agency must be approved by the instructor. The experience reinforces students to apply academic knowledge and theory gained from college course work to the workplace. The community service experience will increase the students’ awareness of cultural, global skills as well as knowledge of the human service agency dynamics and environment. Awareness of and sensitivity to community needs will be developed through measurable learning objectives with an emphasis on transition to a career path in a social services setting. [Transferability: CSU]

CWE 60A OCCUPATIONAL WORK EXPERIENCE: APPRENTICE 6 Units
Prerequisite: Must be enrolled in Building Trade Union Apprenticeship Program. May be taken 4 times for credit. Three hundred hours of paid employment. The CWE program promotes on-the-job learning experiences for an apprentice/student employed in a job related vocational or occupational major. The program reinforces students to apply occupational knowledge and theory gained from Building Trade courses to the workplace. The work experience will build communication, problem-solving, interpersonal and transferable skills. In addition to increasing the apprentices’/students’ awareness of cultural, global, and generational diversity in the work environment. A proactive approach towards a students’/apprentices, career decision making process will be implemented by the development of concrete and measurable learning objectives. [Transferability: CSU]

CWE 65A OCCUPATIONAL WORK EXPERIENCE: 4 Units
APPRENTICE-SHEET METAL
Formerly: CWE 60A
Student must be working in a trade related job and be attending a building trade apprenticeship program. 50 hours of paid employment per unit of credit is required. May be taken 6 times for credit. Two hundred hours paid employment. The CWE program promotes on-the-job learning experiences for an apprentice/student employed in a job related vocational or occupational major. The program reinforces apprentice/student to apply occupational knowledge and theory gained from Sheet Metal Trade courses to the workplace. The work experience will build communication, problem-solving, interpersonal and transferable skills, in addition to increasing the apprentices’/students’ awareness of cultural, global, and generational diversity in the work environment. A proactive approach towards a students’/apprentices, career decision making process will be implemented by the development of concrete and measurable learning objectives. [Transferability: CSU]

CWE 65B OCCUPATIONAL WORK EXPERIENCE: APPRENTICE-SOUND & COMMUNICATIONS
Formerly: CWE 60A
Student must be working in a trade related job and be attending a building trade apprenticeship program. 50 hours of paid employment per unit of credit is required. May be taken 6 times for credit. Two hundred hours paid employment. The CWE program promotes on-the-job learning experiences for an apprentice/student employed in a job related vocational or occupational major. The program reinforces apprentice/student to apply occupational knowledge and theory gained from Sound and Communications Trade courses to the workplace. The work experience will build communication, problem-solving, interpersonal and transferable skills, in addition to increasing the apprentices’/students’ awareness of cultural, global, and generational diversity in the work environment. A proactive approach towards a students’/apprentices, career decision making process will be implemented by the development of concrete and measurable learning objectives. [Transferability: CSU]

CWE 65C OCCUPATIONAL WORK EXPERIENCE: 4 Units
APPRENTICE-PLUMBING
Student must be working in a trade related job and be attending a building trade apprenticeship program. 50 hours of paid employment per unit of credit is required. May be taken for a maximum of 24 units. Two hundred hours paid employment. The CWE program promotes on-the-job learning experiences for an apprentice/student employed in a job related vocational or occupational major. The program reinforces apprentice/student to apply occupational knowledge and theory gained from Plumbing Trade courses to the workplace. The work experience will build communication, problem-solving, interpersonal and transferable skills, in addition to increasing the apprentices’/students’ awareness of cultural, global, and generational diversity in the work environment. A proactive approach towards a students’/apprentices, career decision making process will be implemented by the development of concrete and measurable learning objectives. [Transferability: CSU]

CWE 65D OCCUPATIONAL WORK EXPERIENCE: 4 Units
APPRENTICE-ELECTRICAL
Student must be working in a trade related job and be attending a building trade apprenticeship program. 50 hours of paid employment per unit of credit is required. May be taken 6 times for credit. Two hundred hours paid employment. The CWE program promotes on-the-job learning experiences for an apprentice/student employed in a job related vocational or occupational major. The program reinforces apprentice/student to apply occupational knowledge and theory gained from Electrical Trade courses to the workplace. The work experience will build communication, problem-solving, interpersonal and transferable skills, in addition to increasing the apprentices’/students’ awareness of cultural, global, and
generational diversity in the work environment. A proactive approach towards a students' apprentices, career decision making process will be implemented by the development of concrete and measurable learning objectives [Transferability: CSU]

CNSL 50 INTRODUCTION TO COLLEGE 1 Unit
1 hour lecture. Orientation to Foothill College academic policies, resources, programs and services; introduction to California systems of higher education; formulation of educational plan. [Transferability: CSU]

CNSL 51 PASS THE TORCH TRAINING: LEARNING STRATEGIES FOR STUDENTS PAIRED IN ONE-ON-ONE STUDY TEAMS 1 Unit
1 hour lecture. Pass the Torch is a one-on-one study team program that pairs two students in English Composition, English as Second Language Composition and Mathematics classes. One student has earned an A in the class or a higher level of the subject and as Team Leader provides academic support to the other student who is currently enrolled in the class and as Team Member is the recipient of the academic support. Exploration of learning concepts and strategies essential to succeeding in Pass the Torch as a team member in mathematics, English/ESL composition classes. [Transferability: CSU]

CNSL 52 LEADERSHIP: THEORIES, STYLES 2 Units
Prerequisite: CNSL 51. An introduction to various leadership theories and styles and their application in diverse organizational settings. [Transferability: CSU]

CNSL 56 LEADERSHIP: PRACTICAL APPLICATION 4 Units
Prerequisite: CNSL 51. Application of theoretical knowledge in a practical setting, focusing on the development of effective leadership skills. [Transferability: CSU]

CNSL 57 LEADERSHIP: ORGANIZATIONAL DYNAMICS 3 Units
Prerequisite: CNSL 51. Examination of organizational dynamics, including communication, conflict resolution, and organizational change. [Transferability: CSU]

CNSL 58 LEADERSHIP: CULTURAL DYNAMICS 3 Units
Prerequisite: CNSL 51. Study of leadership in culturally diverse settings, focusing on cultural awareness and effective communication. [Transferability: CSU]

CNSL 59 LEADERSHIP: STRATEGIC PLANNING 3 Units
Prerequisite: CNSL 51. Exploration of strategic planning processes and their role in organizational leadership. [Transferability: CSU]

CNSL 60 LEADERSHIP: ORGANIZATIONAL BEHAVIOR 3 Units
Prerequisite: CNSL 51. Study of leadership and behavior in organizations, including motivation, committees, and human resources. [Transferability: CSU]

CNSL 61 LEADERSHIP: ETHICAL ISSUES 3 Units
Prerequisite: CNSL 51. Examination of ethical leadership practices and their impact on organizational outcomes. [Transferability: CSU]

CNSL 62 LEADERSHIP: INNOVATION 3 Units
Prerequisite: CNSL 51. Study of leadership in innovative contexts, focusing on creativity and change management. [Transferability: CSU]

CNSL 63 LEADERSHIP: TEAMWORK & EFFECTIVE COMMUNICATION 3 Units
Prerequisite: CNSL 51. Exploration of leadership in team settings, focusing on communication and collaboration. [Transferability: CSU]

CNSL 64 LEADERSHIP: ORGANIZATIONAL DEVELOPMENT 3 Units
Prerequisite: CNSL 51. Study of leadership in the context of organizational development and change. [Transferability: CSU]

CNSL 65 LEADERSHIP: GLOBAL LEADERSHIP 3 Units
Prerequisite: CNSL 51. Examination of leadership in global contexts, focusing on cultural and international perspectives. [Transferability: CSU]

CNSL 66 LEADERSHIP: STRATEGIC MANAGEMENT 3 Units
Prerequisite: CNSL 51. Study of leadership in strategic management, focusing on decision-making and organizational effectiveness. [Transferability: CSU]

CNSL 67 LEADERSHIP: LEARNING ORGANIZATIONS 3 Units
Prerequisite: CNSL 51. Exploration of leadership in learning organizations, focusing on continuous improvement and change. [Transferability: CSU]

CNSL 68 LEADERSHIP: ORGANIZATIONAL BEHAVIOR 3 Units
Prerequisite: CNSL 51. Study of leadership and behavior in organizations, including motivation, committees, and human resources. [Transferability: CSU]

CNSL 69 LEADERSHIP: ETHICAL ISSUES 3 Units
Prerequisite: CNSL 51. Examination of ethical leadership practices and their impact on organizational outcomes. [Transferability: CSU]

CNSL 70 LEADERSHIP: ORGANIZATIONAL BEHAVIOR 3 Units
Prerequisite: CNSL 51. Study of leadership and behavior in organizations, including motivation, committees, and human resources. [Transferability: CSU]

CNSL 71 LEADERSHIP: ORGANIZATIONAL DYNAMICS 3 Units
Prerequisite: CNSL 51. Examination of organizational dynamics, including communication, conflict resolution, and organizational change. [Transferability: CSU]

CNSL 72 STRESS, WELLNESS & COPING 3 Units
3 hours lecture. Explore and become familiar with symptoms of stress, depression, and anxiety. Examine the social and psychological factors that contribute to these problems and the patterns of behavior which result. Learn, utilize, and understand effective coping strategies to promote self awareness, personal wellness, and academic success and model these strategies for members of the community. Emphasis placed on mental health and application of self-help skills. [Foothill GE: Lifelong Understanding; Transferability: CSU]

CNSL 73 GENERAL WORK EXPERIENCE 2 Units
40 hours of paid employment per quarter for each unit of credit. Any combination of CWE 55X, 55Y, 75, 75A–G, 76 and 76A–E may be taken for a maximum of 9 units for credit, however, no single course may be taken more than 6 times for credit.

CNSL 74 GENERAL WORK EXPERIENCE 3 Units
3 hours lecture. The CWE Program promotes the job learning experiences for students who are employed. The program reinforces workplace effectiveness and the attainment of transferable skills gained at the worksite. The work experience will increase a students' awareness of cultural, global, and generational diversity in the work environment in addition to building communication, problem solving, interpersonal and transferable skills. Workplace competencies will be developed through measurable learning objectives and with an emphasis on exploring career options in the workplace. [Transferability: CSU]

CNSL 75 GENERAL WORK EXPERIENCE 4 Units
6 Units
Prerequisite: Student must be employed. 50 hours of paid employment per quarter for each unit of credit. Any combination of CWE 55X, 55Y, 75, 75A–G, 76 and 76A–E may be taken for a maximum of 9 units for credit, however, no single course may be taken more than 6 times for credit.

One hundred hours paid employment. The CWE Program promotes the job learning experiences for students who are employed. The program reinforces workplace effectiveness and the attainment of transferable skills gained at the worksite. The work experience will increase a students’ awareness of cultural, global, and generational diversity in the work environment in addition to building communication, problem solving, interpersonal and transferable skills. Workplace competencies will be developed through measurable learning objectives and with an emphasis on exploring career options in the workplace. [Transferability: CSU]
CRWR 41A POETRY WRITING 5 Units
Advisory: Eligibility for ENGL 1A.
May be taken 2 times for credit.
5 hours lecture, 1 hour laboratory.
Explicit instruction and practice in writing poetry and short fiction. Assignments include reading, analyzing and responding to published and student work and writing original work. Lecture and workshop. [Foothill GE: Humanities; Transferability: UC/CSU]

CRWR 42 INTRODUCTION TO WRITING THE NOVEL 5 Units
Advisory: Eligibility for ENGL 1A.
May be taken 4 times for credit.
5 hours lecture, 1 hour laboratory.
Explicit instruction and practice in writing sequenced chapters for a novella or a novel. Assignments include reading, analyzing and responding to published works and student work, as well as writing original work. Lecture and workshop. Analysis of public readings and/or interviews with writers. [Foothill GE: Humanities; Transferability: UC/CSU]

CRWR 43 ADVANCED SHORT FICTION WRITING 5 Units
Advisory: Eligibility for ENGL 1A.
May be taken 2 times for credit.
5 hours lecture.
Explicit instruction and practice in writing a variety of short fiction forms, including short narratives, flash fiction, and traditional short stories. Assignments include reading, analyzing and responding to published works and student work, as well as writing original work. Lecture and workshop. Analysis of public readings and/or interviews with writers. [Foothill GE: Humanities; Transferability: UC/CSU]

CRWR 44 SPECIAL TOPIC IN WRITING 1 Unit
Specific topics to be determined by the instructor. [Transferability: CSU; UC credit may be granted after transfer and upon portfolio review.]

CNSL 87 LEADERSHIP: THEORIES & PRACTICES 1 Unit
Advisory: Eligibility for ENGL 110 or ESLL 25. May be taken 3 times for credit.
1 hour lecture.
Exploration into the dynamics of working groups and the impact of leadership on the effectiveness of groups; examination of the linkage between concepts and theories of leadership to the everyday functioning of student organizations; understand the role played by structure and governance models in organizational effectiveness. [Transferability: CSU]

CNSL 88 LEADERSHIP: THEORIES, STYLES & REALITIES 1 Unit
Advisory: Eligibility for ENGL 110 or ESLL 25. May be taken 3 times for credit.
1 hour lecture.
Continued development and further study into the dynamics of working groups and the impact of leadership on the effectiveness of groups; examination of the linkage between concepts and theories of leadership to the everyday functioning of student organizations; understand the role played by structure and governance models in organizational effectiveness. [Transferability: CSU]

CNSL 89 ADVANCED LEADERSHIP: THEORIES, STYLES & REALITIES 1 Unit
Advisory: Eligibility for ENGL 110 or ESLL 25. May be taken 3 times for credit.
1 hour lecture.
Advanced study in the dynamics of working groups and the impact of leadership on the effectiveness of groups; examination of the linkage between concepts and theories of leadership to the everyday functioning of student organizations; understand the role played by structure and governance models in organizational effectiveness. [Transferability: CSU]

CNSL 175 EOPS: THE ROAD TO COLLEGE SUCCESS—MORE THAN JUST BOOKS 1 Unit
1 hour lecture.
Course will introduce EOPS/CARE students to various EOPS services, policies and requirements governing programs. Course encourages collaborative learning, educational attainment, promotes student retention, persistence, success. Topics included: financial aid/scholarship applications, identifying campus resources, budgeting and managing money, cultural identity and experiences, goal-setting, self-esteem, career options, managing time.

CREATIVE WRITING

Language Arts (650) 949-7678 www.foothill.edu/la/

CRWR 6 INTRODUCTION TO CREATIVE WRITING 5 Units
Prerequisite: Eligibility for ENGL 1A.
5 hours lecture, 1 hour laboratory.
Explicit instruction and practice in writing poetry and short fiction. Assignments include reading, analyzing and responding to published and student work and writing original work. Analysis of public readings and/or interviews with writers. Lecture and workshop. [Foothill GE: Humanities; Transferability: CSU]
<table>
<thead>
<tr>
<th>CRWR 41B</th>
<th>ADVANCED POETRY WRITING</th>
<th>5 Units</th>
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</thead>
<tbody>
<tr>
<td>Prerequisite: CRWR 41A.</td>
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<tr>
<td>May be taken 2 times for credit.</td>
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<tr>
<td>5 hours lecture, 1 hour laboratory.</td>
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<tr>
<td>Explicit instruction and practice in writing poetry. Assignments include reading, analyzing and responding to published and student work and writing original work. Class presentations and workshop leadership. Lecture and workshop. [Foothill GE: Humanities; Transferability: UC/CSU]</td>
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<tr>
<th>CRWR 60</th>
<th>MEMOIR WRITING</th>
<th>5 Units</th>
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<tbody>
<tr>
<td>Advisory: Eligibility for ENGL 1A.</td>
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<tr>
<td>May be taken 4 times for credit.</td>
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<tr>
<td>5 hours lecture.</td>
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<tr>
<td>Explicit instruction and practice in writing memoir and autobiography. Assignments include reading, analyzing and responding to published and student work and writing original work. Analysis of public readings and/or interviews with writers. Lecture and workshop. [Foothill GE: Humanities; Transferability: CSU]</td>
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**DANCE**

Physical Education  
(650) 949-7741  
www.foothill.edu/dance

<table>
<thead>
<tr>
<th>DANC 1A</th>
<th>FUNDAMENTALS OF BALLET I</th>
<th>1 Unit</th>
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<tbody>
<tr>
<td>May be taken 6 times for credit.</td>
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<tr>
<td>3 hours laboratory.</td>
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<tr>
<td>Introduction to the elementary fundamentals of ballet technique and training. Includes the basic vocabulary and practice of barre and center floor exercises. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]</td>
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<table>
<thead>
<tr>
<th>DANC 1B</th>
<th>FUNDAMENTALS OF BALLET II</th>
<th>1 Unit</th>
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<tbody>
<tr>
<td>May be taken 6 times for credit.</td>
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<tr>
<td>3 hours laboratory.</td>
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<tr>
<td>Continuation into the intermediate/advanced fundamentals of ballet technique and training. Includes the intermediate/advanced vocabulary and practice of barre and center floor exercises. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]</td>
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<table>
<thead>
<tr>
<th>DANC 2</th>
<th>BEGINNING MODERN DANCE</th>
<th>1 Unit</th>
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<tbody>
<tr>
<td>Formerly: H P 32</td>
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<td></td>
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<tr>
<td>May be taken 6 times for credit.</td>
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<tr>
<td>3 hours laboratory.</td>
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<tr>
<td>This course is designed to develop the student’s ability to integrate expressive body movement in a creative dance form. Fundamental modern dance locomotor and axial movement are presented and practiced in class. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]</td>
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<table>
<thead>
<tr>
<th>DANC 3A</th>
<th>BEGINNING JAZZ DANCE</th>
<th>1 Unit</th>
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<tbody>
<tr>
<td>Formerly: H P 33</td>
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<td></td>
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<tr>
<td>May be taken 6 times for credit.</td>
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<tr>
<td>3 hours laboratory.</td>
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<tr>
<td>Introduction to the fundamental technique of jazz dance. Emphasis is placed on class participation so that students may develop their knowledge and understanding of the basic principles of jazz dancing, including warm-up, stretch, isolations and choreography. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]</td>
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<table>
<thead>
<tr>
<th>DANC 3B</th>
<th>INTERMEDIATE JAZZ DANCE</th>
<th>1 Unit</th>
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</thead>
<tbody>
<tr>
<td>Formerly: H P 33A</td>
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<td></td>
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<tr>
<td>May be taken 6 times for credit.</td>
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<td></td>
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<tr>
<td>3 hours laboratory.</td>
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<tr>
<td>Designed to give students an opportunity to practice and perfect intermediate jazz techniques. Emphasis on techniques presented as well as information on historical and stylistic perspectives of this dance form. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]</td>
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<thead>
<tr>
<th>DANC 4</th>
<th>BALLROOM &amp; SOCIAL DANCE</th>
<th>1 Unit</th>
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<tbody>
<tr>
<td>May be taken 6 times for credit.</td>
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<td></td>
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<tr>
<td>3 hours laboratory.</td>
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</tr>
<tr>
<td>Introduction to ballroom and social dance techniques. Instruction and practice in Swing, Cha-Cha, Waltz, Fox Trot, Rhumba and Tango dances. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]</td>
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<thead>
<tr>
<th>DANC 5</th>
<th>WORLD DANCE</th>
<th>1 Unit</th>
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</thead>
<tbody>
<tr>
<td>Formerly: H P 47D</td>
<td></td>
<td></td>
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<tr>
<td>May be taken 6 times for credit.</td>
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<tr>
<td>3 hours laboratory.</td>
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<tr>
<td>Introduction to the history and origins of multicultural dance forms. Students will learn the basic steps, combinations, and finished dances of many traditional world dance forms. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]</td>
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<thead>
<tr>
<th>DANC 6</th>
<th>BEGINNING COUNTRY-WESTERN LINE DANCING</th>
<th>1 Unit</th>
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<tbody>
<tr>
<td>Formerly: H P 47</td>
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<tr>
<td>May be taken 6 times for credit.</td>
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<tr>
<td>3 hours laboratory.</td>
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<tr>
<td>Introduction to the fundamental skills for Country and Western Line Dancing. Students will participate in a variety of dance steps designed to develop the coordination, skill, choreography and timing necessary for social line dancing. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]</td>
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<thead>
<tr>
<th>DANC 7</th>
<th>CHOREOGRAPHY</th>
<th>1 Unit</th>
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<tbody>
<tr>
<td>Formerly: H P 34</td>
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<td></td>
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<tr>
<td>May be taken 6 times for credit.</td>
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<tr>
<td>3 hours laboratory.</td>
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<tr>
<td>Exploration of the basic principles and theories of choreography and composition and the tools for defining the creative process. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]</td>
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<thead>
<tr>
<th>DANC 8</th>
<th>DANCE PRODUCTION: REHEARSAL &amp; PERFORMANCE</th>
<th>2 Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formerly: H P 52</td>
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<tr>
<td>May be taken 6 times for credit.</td>
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<tr>
<td>6 hours laboratory.</td>
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<tr>
<td>Foothill repertory and touring dance company. Students gain professional- and advance-level technique training in various dance disciplines and work with master guest artists. [Transferability: UC/CSU]</td>
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<thead>
<tr>
<th>DANC 9</th>
<th>MOVEMENT FOR ACTORS</th>
<th>2 Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formerly: H P 72</td>
<td></td>
<td></td>
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<tr>
<td>May be taken 6 times for credit.</td>
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<tr>
<td>4 hours lecture-laboratory.</td>
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<tr>
<td>Principles and practice of body awareness and movement for actors focusing on movement derived from jazz, musical theater, contemporary dance. Emphasis on alignment and centering, concentration and relaxation, development of the kinesthetic sense and exploration of the body/mind connection. [Transferability: UC/CSU]</td>
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<tr>
<th>DANC 10</th>
<th>TOPICS IN DANCE HISTORY</th>
<th>4 Units</th>
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<tbody>
<tr>
<td>Formerly: H P 70</td>
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<tr>
<td>4 hours lecture.</td>
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<tr>
<td>A comprehensive study of the evolution of theatrical dance in the western world from the 16th century through the present day. Includes the eras of French court ballet, ballet d’action, romantic and classical ballet, modern, post-modern and contemporary dance. Examines topics in dance as an art form, including history, traditions, trends; outstanding artists and works; practice in observing and understanding dance in a historical and cultural context. Analysis of dance as an expression of social order, power, classical art, a medium of cultural fusion, and as an expression of individual artists. [Transferability: UC/CSU]</td>
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</table>
DANC 11  Foothill Repertory Dance Company 3 Units
Formerly: H P 40P
Advisory: DANC 11 and PHED 34G are interchangeable.
May be taken 6 times for credit.
15 hours lecture-laboratory.
Supervised participation in scheduled productions of the dance department, in cast or crew. A laboratory course for the resident and touring company of the college, including instruction on the how to of a full-scale theatrical production for public performance. [Transferability: UC/CSU]

Dental Assisting

Biological & Health Sciences  (650) 949-7351
www.foothill.edu/bio/programs/dentala/

D A 50  Orientation To Dental Assisting 2.5 Units
Prerequisite: Admission to Dental Assisting Program.
2.5 hours lecture, 1 hour collaborative learning.
Preview of dental practice, including specialties, history, professional and legal responsibilities and the role of the dental auxiliary; dental forms, record keeping, patient communication and office personnel relations. [Transferability: CSU]

D A 51A  Introduction To Chairside Dental Assisting 5.5 Units
Prerequisite: Admission to Dental Assisting Program.
2.5 hours lecture, 1 hour seminar, 9 hours laboratory, 8 hours field experience.
Introduction to chairside assisting; use and care of dental equipment, patient management, instrument identification; overview of common dental procedures such as composite, amalgam, partials, dentures, root canals, crown and bridge appointments; manipulation of dental materials commonly prepared or used by the dental assistant including temporary dressings, Impression materials, cement bases and liners, topical agents, composites, resins and amalgams. [Transferability: CSU]

D A 51B  Intermediate Clinical Dental Assisting 2 Units
Prerequisite: Admission to Dental Assisting Program.
1.5 hours lecture, 2 hours laboratory.
Continuation of techniques introduced in D A 51A; periodontal and oral surgery procedures. Registered Dental Assistant orthodontic functions, fabrication of bleaching splints, dental sealants. [Transferability: CSU]

D A 51C  Advanced Dental Assisting Skills 3 Units
Prerequisite: Admission to Dental Assisting Program.
2.5 hours lecture, 4 hours laboratory.
Continuation of techniques introduced in D A 51A and 51B to include pulp vitality testing, fluoride administration, intraoral/extraoral exam, polishing removable partial and full dentures, dental implants, and pedodontic procedures. Theory and practice of coronal polishing. [Transferability: CSU]

D A 53A  Introduction To Radiography 3 Units
Prerequisite: Admission to Dental Assisting Program.
2 hours lecture, 3 hours laboratory.
Production, characteristics, and biologic effects of radiation; function, components, and operation of the X-ray unit; radiation protection and monitoring; chemistry and techniques associated with X-ray film and developing solutions. Review of anatomic landmarks, introduction to intraoral long-cone radiographic techniques in the bitewing, periapical and occlusal surveys. [Transferability: CSU]

D A 53B  Dental Radiography 2 Units
Prerequisite: D A 53A.
1 hour lecture, 3 hours laboratory.
Intraoral techniques continued; evaluation of film quality, recognition of anomalies and variations in tissue density, specialized procedures for the pedodontic, endodontic, and edentulous patient, forensic and legal considerations, and principles of panoramic and cephalometric film. [Transferability: CSU]

D A 53C  Dental Radiography 1 Unit
Prerequisite: D A 53A and 53B.
3 hours laboratory.
Intraoral techniques and film evaluation continued; film interpretation for dental charting; introduction to short cone and bisecting angle radiographic techniques. [Transferability: CSU]

D A 56  Dental Health Education 1 Unit
Prerequisite: Admission to Dental Assisting Program.
1 hour lecture, 1 hour field study.
Principles of patient motivation and education; etiology, process and prevention of dental decay and periodontal disease; design and management of a plaque control program; brushing, flossing, adjunctive aids; dietary counseling. [Transferability: CSU]

D A 57  Office Emergency Procedures 2 Units
Prerequisite: Admission to Dental Assisting Program.
2 hours lecture.
Overview of psychological or common medical problems which could lead to an emergency situation in a dental office. Emphasis placed on prevention, management, and legal issues of an emergency response. [Transferability: CSU]

D A 58  Speciality Practice Procedures 1 Unit
Advisory: Admission to the Dental Assisting Program.
1 hour lecture.
Familiarization with the scope of practice in both general and specialty dental office settings. The emphasis of this survey class will be on the role of the auxiliary personnel in each of the different types of dental practices. [Transferability: CSU]

D A 60A  Dental Office Business Practices 2 Units
Prerequisite: Admission to Dental Assisting Program.
2 hours lecture, 1 hour laboratory.
Introduction to appointment management, telephone techniques, dental and office records; correspondence; billing procedures, treatment plan and case presentation; bookkeeping and accounting procedures, and the use of computers in the dental office. [Transferability: CSU]

D A 60B  Dental Office Business Practices 3 Units
Prerequisite: Admission to Dental Assisting Program.
3 hours lecture, 1 hour laboratory.
Introduction to purchasing, inventory and cost control; banking, payroll and tax procedures; resume writing and interviewing techniques. Includes billing and insurance procedures, collection of accounts, treatment plans and case presentations, bookkeeping and accounting procedures. Instruction in both manual and computer applications. [Transferability: CSU]

D A 62A  Dental Sciences 2 Units
Prerequisite: Admission to Dental Assisting Program.
2 hours lecture, 1 hour laboratory.
Discussion of anatomy and morphology of the teeth, the eruption sequence and process; normal occlusion, development and class of malocclusions; anatomy of the skull, arteries and veins, musculature and nervous structures of the head and neck. [Transferability: CSU]
D A 62B  DENTAL SCIENCES  2 Units
Prerequisite: Admission to Dental Assisting Program.
2 hours lecture.
An overview of the embryologic development of the structures and
tissues of the head, neck, teeth and oral cavity, histology of the hard
and soft tissues of the oral cavity. Developmental and structural defects
involving the oral cavity and the teeth. Periodontal diseases, caries
process and oral pathology. [Transferability: CSU]

D A 62C  DENTAL SCIENCES  2 Units
Prerequisite: Admission to Dental Assisting Program.
2 hours lecture.
Microbiologic and nutritional conditions related to dentistry; etiology,
symptoms, transmission and control of infective and contagious diseases,
nutritional physiology, and counseling, effect of nutrition on general
dental health. Pharmacology of local anesthetic solutions, analgesic
gases, and psychosedatives, and antibiotic agents. Use of nitrous oxide
equipment. [Transferability: CSU]

D A 63  SPECIAL PATIENT POPULATIONS  1 Unit
1 hour lecture
Discussion and development of techniques and/or equipment needed to
meet the needs of special patient populations, including the physically
and/or emotionally limited. [Transferability: CSU]

D A 71  INFECTION CONTROL & HAZARDOUS WASTE MANAGEMENT  1.5 Units
Prerequisite: Admission to Dental Assisting Program.
1.5 hour lecture, 1 hour field study.
Introduction to infectious diseases important to dentistry. Instruction on
disinfection, instrument decontamination, sterilization procedures and
tray set-up preparation. Regulatory compliance agencies such as OSHA,
CDC and ADA recommendations. Hazardous materials management and
waste management. Protocols and emergency procedures for hazardous
and biohazardous waste or materials. [Transferability: CSU]

D A 73  DENTAL ASSISTING SUPERVISED CLINIC  3 Units
Prerequisite: D A 51A.
16 hours clinic, 2 hours field study.
Continuation of techniques introduced in D A 51A: supervised clinical
experience in externship environment, chairside dental assisting in
general practice and specialty clinics at the UCSF School of Dentistry.
[Transferability: CSU]

D A 74  DENTAL ASSISTING CLINICAL PRACTICE  3 Units
Prerequisite: Admission to Dental Assisting Program.
17 hours clinic, 2 hours field study.
Continuation of techniques introduced in D A 51A, 51B and 73; supervised
clinical experience in externship environment; advanced and specialty
chair side procedures. [Transferability: CSU]

D A 85  RDA REVIEW  1 Unit
Prerequisite: D A 51A and 51B.
May be taken 3 times for credit.
1 hour lecture, 3 hours laboratory, 2 hours field study.
Information necessary for completion of requirements for national
certification and Registered Dental Assisting (RDA) licensure in the State
of California. Review of chairside dental assisting procedures to prepare
for written and practical examinations. Sizing of stainless steel crowns.
Fabrication of temporary crowns and Class II temporary restorations.
[Transferability: CSU]

D A 88  PIT & PISSURE SEALANTS  1.5 Units
Prerequisite: Admission to Dental Assisting Program.
1 hour lecture, 2 hours laboratory.
Theory and practice for placement of sealants by the Registered Dental
Assistant to prevent decay in the pit and fissure areas of the dentition.
[Transferability: CSU]

DENTAL HYGIENE

Biological & Health Sciences  (650) 949-7538  www.foothill.edu/bio/programs/dentalhygiene/

D H 50  ORIENTATION TO DENTAL HYGIENE  1 Unit
Prerequisite: Admission to Dental Hygiene Program.
1.5 hours lecture-laboratory.
Overview of dental hygiene as a career. Dental terminology, introduction
to instrumentation skills, including: modified pen grasp, fulcrums,
adaptation, insertion and activation of the explorer. The course will
involve some online work, observation in clinic, and instrumentation on
typodonts. Strategies & skills for student success in the dental hygiene
program. [Transferability: CSU]

D H 52A  ORAL BIOLOGY  3 Units
Prerequisite: Admission to Dental Hygiene Program.
2 hours lecture, 2 hours laboratory.
Discussion of the anatomy and identification of the teeth, the eruption
sequence, normal occlusion, and classification of occlusion. Anatomy of
the skull, arteries, veins, and lymphatics, musculature and nervous
structures of the head and neck. [Transferability: CSU]

D H 52B  ORAL BIOLOGY  3 Units
Prerequisite: D H 52A.
2 hours lecture, 2 hours laboratory.
The embryologic development of the structures and tissues of the head,
neck, teeth and oral cavity; histology of the hard and soft tissues of the
oral cavity. Anatomy of the tooth crown, root and pulp; development
and structural defects involving the oral cavity and the teeth. The normal
periodontal tissues, oral mucous membranes, and salivary glands.
[Transferability: CSU]

D H 53  ASSESSMENT PROCEDURES IN THE DENTAL HYGIENE PROCESS  4 Units
Prerequisite: Admission to Dental Hygiene Program.
4 hours lecture.
The first in a 3 course series in dental hygiene theory and practice. This
course will focus on the principles of assessment techniques as the first
phase of the dental hygiene process of care. The rationale for collection
of assessment data, and associated clinical procedures will be discussed.
Introduces infectious diseases important to dentistry, hazardous materials
management, and waste management, and rules of regulatory agencies
(OSHA, CDC and ADA). [Transferability: CSU]

D H 54  PRE-CLINICAL DENTAL HYGIENE  4 Units
Prerequisite: Admission to Dental Hygiene Program.
1 hour lecture, 9 hours laboratory, 3 hours field experience.
The first in a seven-course series in dental hygiene clinical practices.
This course integrates the scientific and clinical principles underlying
the practice of dental hygiene. Clinical procedures and techniques for
patient assessment, including prevention of disease transmission, health
history, extra-intraoral examination, gingival evaluation and periodontal
examination are taught in a pre-clinical setting. Students will work on
typodonts and classmates. The course requires evaluation of clinical
performance through demonstration of skill acquisition and level of
competency. Field experiences reinforce and amplify the knowledge
and skills needed to perform dental hygiene procedures in the clinical
setting. [Transferability: CSU]

D H 55A  FUNDAMENTALS OF PATHOLOGY I  2 Units
Prerequisite: D H 52B.
2 hours lecture.
Introduction to general pathology and specific pathologic processes,
repair, healing, and regressive changes. Social significance of pathology.
[Transferability: CSU]

D H 55B  FUNDAMENTALS OF PATHOLOGY II  2 Units
Prerequisite: DH 55A.
2 hours lecture.
Pathology of the head, neck, and oral structures. Developmental
conditions caries, diseases of bacterial and viral origin, neoplasms of the
oral cavity. [Transferability: CSU]
D H 56    APPLIED PHARMACOLOGY 2 Units
IN DENTISTRY
Prerequisite: BIOL 58, D H 61A or licensed dental hygienist or dentist. 2 hours lecture.
This course is a study of drugs by groups with special emphasis on those drugs and medications used in dentistry. The physical and chemical properties, dosage and therapeutic effects of each group of drug will be discussed. The dental hygiene implications for patients taking different drugs will be emphasized. [Transferability: CSU]

D H 57A    PERIODONTICS 2 Units
Prerequisite: D H 52B. 2 hours lecture.
Examination of anatomy and physiology of periodontium. Correlation of basic sciences with the clinical aspects of periodontal diseases. Etiology and pathogenesis of periodontal diseases. [Transferability: CSU]

D H 57B    PERIODONTICS 2 Units
Prerequisite: D H 57A. 2 hours lecture.
Fundamental principles of periodontology, including normal periodontium, etiology and classification of periodontal disease; relationship of dental deposits to periodontal diseases. Development of periodontal pocket and abscess. Process of bone loss. [Transferability: CSU]

D H 57C    PERIODONTICS 2 Units
Prerequisite: D H 57B. 2 hours lecture.
The purpose of this course is to examine the role of the dental hygienist in nonsurgical periodontal therapy, periodontal surgical therapy, and periodontal maintenance therapy. A periodontal competency report both oral and written is required. [Transferability: CSU]

D H 59    SURVEY OF DENTISTRY 1 Unit
Prerequisite: Admission to the Dental Hygiene Program. 1 hour lecture, 1 hour field experience.
This course is an introduction to dental procedures in the specialty office with emphasis on dental auxiliary duties and collaboration with dental specialties for comprehensive patient/client care. Legal scope of practice for the dental hygienist and appropriate referral protocol is emphasized. [Transferability: CSU]

D H 60A    INTRODUCTION TO DENTAL RADIOGRAPHY 2 Units
Prerequisite: Admission to Dental Hygiene Program. 2 hours lecture.
Production characteristics and biologic effects of radiation, function, components, and operation of the X-ray unit. Radiation protection and monitoring of personnel. Chemistry and techniques associated with X-ray film and developing solutions. Review of anatomic landmarks and principles of shadow casting. [Transferability: CSU]

D H 60B    DENTAL RADIOGRAPHY 1 Unit
Prerequisite: D H 60A. 3 hours laboratory.
Introduction to intraoral techniques in dental radiography, including film exposure, processing, and mounting. Group and individual evaluation and interpretation of films exposed on mannequin and lab partner. Continuation of exposure of dental radiographs on clinical patients. [Transferability: CSU]

D H 60C    DENTAL RADIOGRAPHY .5 Unit
Prerequisite: D H 60B. 1 hour lecture-laboratory.
Practice of dental radiographic techniques on clinic patients, including the exposure, processing, and mounting of films. Continuation of group and individual evaluation and interpretation of films exposed in clinic. [Transferability: CSU]

D H 60D    DENTAL RADIOGRAPHY .5 Unit
Prerequisite: D H 60C. 1 hour lecture.
Production characteristics and biologic effects of radiation, function, components, and operation of the X-ray unit. Radiation protection and monitoring of personnel. Chemistry and techniques associated with X-ray film and developing solutions. Review of anatomic landmarks and principles of shadow casting. [Transferability: CSU]

D H 60E    DENTAL RADIOGRAPHY .5 Unit
Prerequisite: D H 60D. 1 hour lecture-laboratory.
Continuation of film exposure, processing and mounting; group-individual evaluation and interpretations of film. [Transferability: CSU]

D H 61A    CLINICAL TECHNIQUE 6 Units
Prerequisite: D H 52A and 54 or completion of a dental hygiene program with equivalent courses.
3 hours lecture, 9 hours laboratory, 3 hours field experience.
This course is a continuation of dental hygiene clinical practice and instrumentation techniques including: periodontal examination, scaling and root planing, sharpening. Adjunctive dental hygiene procedures taught include: fluorides, selective coronal polishing. Clinical activities utilize typodonts and student partners. The course requires evaluation of clinical performance through demonstration. Supportive labs and observation to reinforce and amplify the knowledge and skills needed to perform dental hygiene procedures in the clinical setting for D H 61A. [Transferability: CSU]

D H 61B    INTRODUCTION TO CLINIC 4 Units
Prerequisite: Completion of D H 61A and 52B with grade of “C” or higher; possession of a current CPR certificate.
3 hours lecture, 6 hours clinic, 3 hours field experience.
Continuation of clinical dental hygiene practice. Assessing, planning, and implementing dental hygiene care on patients in a clinical setting. Dental hygiene care for patients with special needs. Development of progress in clinical performance with each successive academic period. [Transferability: CSU]

D H 61A    CLINICAL DENTAL HYGIENE 3.5 Units
Prerequisite: D H 61B. 1 hour lecture, 9 hours clinic, 1 hour field experience.
Continuation of dental hygiene clinical practice. Assessing, planning, and implementing, and evaluating dental hygiene care on patients in a clinical setting. Development of progress in clinical performance with each successive academic period. [Transferability: CSU]

D H 61B    CLINICAL DENTAL HYGIENE 5 Units
Prerequisite: D H 61A. 1 hour lecture, 15 hours clinic, 3 hours field experience.
Continuation of clinical dental hygiene practice. Assessing, planning, implementing and evaluation dental hygiene care on patients in a clinical setting. Adjunctive clinical procedures to be performed include: dental charting, desensitization of hypersensitive teeth, ultrasonic scaling, amalgam finishing and administration of local anesthetics. [Transferability: CSU]

D H 62A    CLINICAL DENTAL HYGIENE 5 Units
Prerequisite: D H 62B. 1 hour lecture, 15 hours clinic, 3 hours field experience.
Continuation of dental hygiene clinical practice. Assessing, planning, implementing and evaluation dental hygiene care on patients in a clinical setting. Adjunctive clinical procedures to be performed include: dental charting, desensitization of hypersensitive teeth, ultrasonic scaling, soft tissue curettage, and administration of local anesthetic. [Transferability: CSU]
D H 62D CLINICAL DENTAL HYGIENE 5 Units
Prerequisite: D H 62C.
1 hour lecture, 15 hours clinic, 3 hours field experience.
Continuation of clinical dental hygiene practice. Continuation of on- and off-campus clinical experiences. Assessing, planning, implementing and evaluating dental hygiene care on patients in a clinical setting. Designed to complete the development of competencies demanded of the hygienist entering the field. [Transferability: CSU]

D H 63C COMMUNITY DENTAL HEALTH 3 Units
Prerequisite: D H 73.
2 hours lecture, 2 hours field experience.
Introduction into community dental health problems and school dental health programs; development and implementation of a community dental health program. [Transferability: CSU]

D H 63D COMMUNITY DENTAL HEALTH II 3 Units
Prerequisite: D H 63C.
2 hours lecture, 3 hours laboratory, 3 hours research project.
The emphasis of this course is on the steps to developing community dental health programs, including health promotion programs. Local, state, and federal departments of public health services, types of fluoridation, and school-based dental health programs and screenings will be evaluated. The evidence-based decision making process will be applied to the dental public health setting. [Transferability: CSU]

D H 64 ETHICS, LAW & DENTAL OFFICE PRACTICES 2 Units
2 hours lecture.
This course covers the subjects of ethics, jurisprudence and practice aspects of dental hygiene practice. Emphasis will be placed on the challenges of providing ethical care in the clinical setting. The laws and regulations effecting the practice of dental hygiene will be analyzed and the scope of practice of dental professionals as outlined by the California Dental Practice Act will be examined. [Transferability: CSU]

D H 65 CLINICAL LOCAL ANESTHESIA 2.5 Units
Prerequisite: D H 54, or completion of a ADA approved dental hygiene program; possession of a current CPR certificate.
2 hours lecture, 1.5 hours laboratory.
Review of pharmacology, anatomy, physiology, and emergency procedures associated with local anesthetic procedures. Preparation for and administration of conduction and infiltration anesthesia in dental procedures. Laboratory and clinical experience in administration. [Transferability: CSU]

D H 66 SOFT TISSUE CURETTAGE 1 Unit
Prerequisite: D H 65.
1 hour lecture.
Training for the dental hygiene student or dental hygienist in performing soft tissue curettage. [Transferability: CSU]

D H 67 NITROUS OXIDE/ OXYGEN ANALGESIA 1 Unit
2 hours lecture-laboratory.
Training for the dental hygiene student or dental hygienist in performing nitrous oxide/oxygen analgesia. [Transferability: CSU]

D H 68A RADIOGRAPHIC INTERPRETATION 2 Units
Prerequisite: D H 60A.
2 hours lecture.
Continued experiences in the interpretation of intraoral and panoramic radiographs, including identification of normal and non-normal structures, radiographic considerations of bone and teeth and signs of pathology. Identification and interpretation of radiographic caries, periodontal disease, trauma, and dental anomalies. Introduction to digital radiography. [Transferability: CSU]

D H 71 OFFICE EMERGENCY PROCEDURES 2 Units
Prerequisite: Admission to Dental Hygiene Program.
2 hours lecture.
This course is a study of common medical emergencies that may occur during delivery of dental care. Emphasis is placed on methods to prevent emergencies from occurring and procedures to manage emergency situations. Ethical and legal aspects in assisting during emergencies are also discussed. [Transferability: CSU]

D H 72 DENTAL MATERIALS 3 Units
Prerequisite: Admission to Dental Hygiene Program.
2 hours lecture, 3 hours laboratory.
Properties of dental materials, characteristics and manipulation of impression materials, gypsum products, investment, cements, resins, metallic and non-metallic restorative materials. [Transferability: CSU]

D H 73 DENTAL HEALTH EDUCATION 2 Units
Prerequisite: Admission to the Dental Hygiene Program. Advisory: PSYC 1.
2 hours lecture.
This course provides the fundamentals of patient education to include: communication theory, development of client/clinician relationships, mechanical plaque removal techniques, antimicrobial therapies, nutritional counseling for dental hygiene, smoking cessation counseling, patient motivation with particular attention to psychological, social, and economic, cultural & life stage factors. There is an emphasis on prevention of dental diseases through effective patient education. Preventive dental products will be reviewed and analyzed. [Transferability: CSU]

D H 75A CLINICAL DENTAL HYGIENE THEORY 1.5 Units
Prerequisite: Admission to Dental Hygiene Program.
1 hour lecture, 3 hours laboratory.
Discussion and demonstration of supplemental dental hygiene functions: digital intraoral photography, dental hygiene instrumentation, ultrasonic and microultrasonic scaling techniques. Supportive course to reinforce and amplify the knowledge and skills needed to perform dental hygiene procedures in the clinical setting for D H 62B. [Transferability: CSU]

D H 75B CLINICAL DENTAL HYGIENE THEORY 1.5 Units
Prerequisite: Admission to Dental Hygiene Program.
1 hour lecture, 3 hours laboratory.
Discussion and demonstration of supplemental dental hygiene functions, amalgam overhang removal, orthodontic therapy and dental hygiene, advanced instrumentation technique, air polishing, advanced local anesthesia delivery techniques, implants in dentistry and new technology in dental hygiene. Supportive course to reinforce and amplify the knowledge and skills needed to perform dental hygiene procedures in the clinical setting for D H 62C. [Transferability: CSU]

D H 75C CLINICAL DENTAL HYGIENE THEORY 1.5 Units
Prerequisite: Admission to Dental Hygiene Program.
1 hour lecture, 3 hours laboratory.
This course is designed to aid the student in identifying an appropriate patient for the California State Board Exam for Dental Hygienists and in identifying and anticipating methods which will influence a successful patient motivation with particular attention to psychological, social, and economic, cultural & life stage factors. Ethical and legal aspects in assisting during emergencies are also discussed. [Transferability: CSU]

D H 75D CLINICAL DENTAL HYGIENE THEORY 1.5 Units
Prerequisite: Admission to Dental Hygiene Program.
1 hour lecture, 3 hours laboratory.
This course is a study of common medical emergencies that may occur during delivery of dental care. Emphasis is placed on methods to prevent emergencies from occurring and procedures to manage emergency situations. Ethical and legal aspects in assisting during emergencies are also discussed. [Transferability: CSU]

D H 76 OFFICE EMERGENCY PROCEDURES 2 Units
Prerequisite: Admission to Dental Hygiene Program.
2 hours lecture.
This course is a study of common medical emergencies that may occur during delivery of dental care. Emphasis is placed on methods to prevent emergencies from occurring and procedures to manage emergency situations. Ethical and legal aspects in assisting during emergencies are also discussed. [Transferability: CSU]

D H 77 DENTAL MATERIALS 3 Units
Prerequisite: Admission to Dental Hygiene Program.
2 hours lecture, 3 hours laboratory.
Properties of dental materials, characteristics and manipulation of impression materials, gypsum products, investment, cements, resins, metallic and non-metallic restorative materials. [Transferability: CSU]

D H 78 DENTAL HEALTH EDUCATION 2 Units
Prerequisite: Admission to the Dental Hygiene Program. Advisory: PSYC 1.
2 hours lecture.
This course provides the fundamentals of patient education to include: communication theory, development of client/clinician relationships, mechanical plaque removal techniques, antimicrobial therapies, nutritional counseling for dental hygiene, smoking cessation counseling, patient motivation with particular attention to psychological, social, and economic, cultural & life stage factors. There is an emphasis on prevention of dental diseases through effective patient education. Preventive dental products will be reviewed and analyzed. [Transferability: CSU]

D H 79 CLINICAL DENTAL HYGIENE THEORY 1.5 Units
Prerequisite: Admission to Dental Hygiene Program.
1 hour lecture, 3 hours laboratory.
Discussion and demonstration of supplemental dental hygiene functions, amalgam overhang removal, orthodontic therapy and dental hygiene, advanced instrumentation technique, air polishing, advanced local anesthesia delivery techniques, implants in dentistry and new technology in dental hygiene. Supportive course to reinforce and amplify the knowledge and skills needed to perform dental hygiene procedures in the clinical setting for D H 62C. [Transferability: CSU]

D H 80 CLINICAL DENTAL HYGIENE THEORY 1.5 Units
Prerequisite: Admission to Dental Hygiene Program.
1 hour lecture, 3 hours laboratory.
This course is designed to aid the student in identifying an appropriate patient for the California State Board Exam for Dental Hygienists and in identifying and anticipating methods which will influence a successful state board experience. Supportive course to reinforce and amplify the knowledge and skills needed to perform dental hygiene procedures. [Transferability: CSU]

D H 81 CLINICAL DENTAL HYGIENE THEORY 1.5 Units
Prerequisite: Admission to Dental Hygiene Program.
1 hour lecture, 3 hours laboratory.
Discussion and demonstration of supplemental dental hygiene functions, amalgam overhang removal, orthodontic therapy and dental hygiene, advanced instrumentation technique, air polishing, advanced local anesthesia delivery techniques, implants in dentistry and new technology in dental hygiene. Supportive course to reinforce and amplify the knowledge and skills needed to perform dental hygiene procedures. [Transferability: CSU]

D H 82 CLINICAL DENTAL HYGIENE THEORY 1.5 Units
Prerequisite: Admission to Dental Hygiene Program.
1 hour lecture, 3 hours laboratory.
This course is designed to aid the student in identifying an appropriate patient for the California State Board Exam for Dental Hygienists and in identifying and anticipating methods which will influence a successful state board experience. Supportive course to reinforce and amplify the knowledge and skills needed to perform dental hygiene procedures. [Transferability: CSU]

D H 83 CLINICAL DENTAL HYGIENE THEORY 1.5 Units
Prerequisite: Admission to Dental Hygiene Program.
1 hour lecture, 3 hours laboratory.
This course is designed to aid the student in identifying an appropriate patient for the California State Board Exam for Dental Hygienists and in identifying and anticipating methods which will influence a successful state board experience. Supportive course to reinforce and amplify the knowledge and skills needed to perform dental hygiene procedures. [Transferability: CSU]

D H 84 CLINICAL DENTAL HYGIENE THEORY 1.5 Units
Prerequisite: Admission to Dental Hygiene Program.
1 hour lecture, 3 hours laboratory.
This course is designed to aid the student in identifying an appropriate patient for the California State Board Exam for Dental Hygienists and in identifying and anticipating methods which will influence a successful state board experience. Supportive course to reinforce and amplify the knowledge and skills needed to perform dental hygiene procedures. [Transferability: CSU]

D H 85 CLINICAL DENTAL HYGIENE THEORY 1.5 Units
Prerequisite: Admission to Dental Hygiene Program.
1 hour lecture, 3 hours laboratory.
This course is designed to aid the student in identifying an appropriate patient for the California State Board Exam for Dental Hygienists and in identifying and anticipating methods which will influence a successful state board experience. Supportive course to reinforce and amplify the knowledge and skills needed to perform dental hygiene procedures. [Transferability: CSU]

D H 86 CALIFORNIA STATE BOARD PREPARATION .5 Unit
Prerequisite: Completion of D H 62D or equivalent.
Advisory: Pass/No Pass.
May be taken 2 times for credit.
1.5 hours lecture-laboratory.
This course is designed to aid the student in identifying an appropriate patient for the California State Board Exam for Dental Hygienists and in identifying and anticipating methods which will influence a successful state board experience. Supportive course to reinforce and amplify the knowledge and skills needed to perform dental hygiene procedures. [Transferability: CSU]
### Diagnostic Medical Sonography

**DMS 50A** DIAGNOSTIC MEDICAL SONOGRAPHY PRINCIPLES & PROTOCOLS 4 Units
- Prerequisite: Admission to Diagnostic Medical Sonography Program.
- 4 hours lecture.
- An intensive course about fundamentals of ultrasound principles, protocols, and scanning involving the major abdominal organ structures, gynecology, obstetrics, and vessels. Sonographic terminology, orientation and descriptions of normal and abnormal structures. It is assumed the student has a thorough knowledge of gross and sectional anatomy. [Transferability: CSU]

**DMS 50B** SONOGRAPHY & PATIENT CARE 2 Units
- Prerequisite: Admission to Diagnostic Medical Sonography Program.
- 2 hours lecture.
- This course is designed to define the student sonographer’s role on the medical team. It prepares the student to enter the clinical environment including instruction in sonographer safety and ergonomics. Legal, ethical, legislative and regulatory issues including scope of practice and standards. Patient care techniques, clinical assessment, diagnosis and treatment. Interacting with cultural, age, and the special needs populations. Professionalism, competency-based education and leadership. [Transferability: CSU]

**DMS 51A** SECTIONAL ANATOMY 3 Units
- Prerequisite: BIOL 40A, B, C or equivalent; some background with medical terminology or equivalent or health care professional or student of allied health occupation.
- 3 hours lecture.
- Sectional human anatomy for health care professionals, students of Allied Health and nursing professions. Emphasis on transverse, coronal and sagittal planes and correlation to other imaging modalities. Discussions include pathology-related alterations to sectional anatomy images. [Transferability: CSU]

**DMS 52A** PHYSICAL PRINCIPLES OF DIAGNOSTIC MEDICAL SONOGRAPHY I 2 Units
- Prerequisite: Admission to the Diagnostic Medical Sonography Program.
- 2 hours lecture.
- Principles of diagnostic ultrasound, wave characteristics, artifacts, propagation, acoustic variables, and review of mathematical skills. [Transferability: CSU]

**DMS 52B** PHYSICAL PRINCIPLES OF DIAGNOSTIC MEDICAL SONOGRAPHY II 2 Units
- Prerequisite: DMS 52A.
- 2 hours lecture.
- A continuation of Physical Principles A with an emphasis on transducers, pulsed waves, real-time imaging and image display. [Transferability: CSU]

**DMS 52C** PHYSICAL PRINCIPLES OF DIAGNOSTIC MEDICAL SONOGRAPHY III 2 Units
- Prerequisite: DMS 52B.
- 2 hours lecture.
- A continuation of Physical Principles B with an emphasis on advanced principles in medical ultrasound instrumentation, harmonic imaging, volume rendering, hemodynamics, use of doppler imaging and sonographic quality control procedures. Preparation for national examinations. [Transferability: CSU]

**DMS 53A** DIAGNOSTIC MEDICAL SONOGRAPHY I 2 Units
- Prerequisite: Admission to the Diagnostic Medical Sonography Program.
- 2 hours lecture, 1 hour ETUDES-NG internet skills.
- Anatomy and physiology related to the major abdominal organs and major abdominal vessels. Assessment including physical, clinical symptoms, and laboratory findings. Related pathology and its sonographic appearance involving these structures. Scanning protocols, technical factors and image quality. [Transferability: CSU]

**DMS 53B** DIAGNOSTIC MEDICAL SONOGRAPHY II 2 Units
- Prerequisite: Admission to the Diagnostic Medical Sonography Program.
- 2 hours lecture, 1 hour ETUDES-NG internet skills.
- Anatomy and physiology related to major and superficial structures and organs including sonography of abdominal organs and superficial structures. Assessment including physical, clinical symptoms, laboratory findings, and pathology including the sonographic appearances. Scanning protocols, technical factors and image quality. [Transferability: CSU]

**DMS 53C** DIAGNOSTIC MEDICAL SONOGRAPHY III 2 Units
- Prerequisite: Admission to the Diagnostic Medical Sonography Program.
- 2 hours lecture, 1 hour ETUDES-NG internet skills.
- Anatomy, physiology and pathology of abdominal organs not yet covered, neurosonography, superficial structures, transplant, and the pediatric patient. Use of sonography in the operating room with a review of aseptic technique. Discussion of related medical ethics and legal issues. [Transferability: CSU]

**DMS 54A** GYNECOLOGY 2 Units
- Prerequisite: Admission to the Diagnostic Medical Sonography Program.
- 2 hours lecture, .5 hour ETUDES-NG internet skills.
- Anatomy and physiology of the nongravid pelvis. Pathology, sonographic appearance, and clinical symptoms of the female patient. Sonographic protocols and measurements with correlations to accepted standards. [Transferability: CSU]

**DMS 54B** GYNECOLOGY & OBSTETRICS 2 Units
- Prerequisite: Admission to the Diagnostic Medical Sonography Program.
- 2 hours lecture, .5 hour ETUDES-NG internet skills.
- Anatomy and physiology of the nongravid pelvis and first trimester pregnancy. Pathology, sonographic appearance, and clinical symptoms of the female patient. Sonographic protocols and measurements with correlations to accepted standards. [Transferability: CSU]

**DMS 55A** OBSTETRICS I 2 Units
- Prerequisite: Admission to the Diagnostic Medical Sonography Program.
- 2 hours lecture, .5 hour ETUDES-NG skills.
- Normal fetal growth and sonographic measurements with correlation to accepted standards. Development of the placenta, amniotic fluid and cord. Abnormalities, pathology and maternal complications. [Transferability: CSU]
DMS 55B OBGYNETRICS II 2 Units
Prerequisite: Admission to the Diagnostic Medical Sonography Program.
2 hours lecture, .5 hour ETUDES-NG internet skills.
Advanced obstetrical sonography. Abnormal 2nd and 3rd trimester fetal growth and sonographic measurements with correlations to accepted standards. Abnormalities, pathology and maternal complications. [Transferability: CSU]

DMS 56A VASCULAR SONOGRAPHY 3 Units
Prerequisite: Admission to Diagnostic Medical Sonography Program.
3 hours lecture.
Vascular terminology, principles including doppler physics. Interpretation of frequency spectral analysis. Intracranial, cerebrovascular and peripheral venous applications related to vascular technology. Normal, abnormal and pathologic states of the human vascular system. [Transferability: CSU]

DMS 56B ADVANCED APPLICATIONS OF VASCULAR TECHNOLOGY 2 Units
Prerequisite: DMS 56A.
May be taken 3 times for credit.
2 hours lecture.
A continuation of DMS 56A for the advanced principles & theory of noninvasive vascular technology. Comprehensive study of arterial and venous applications including peripheral arterial, abdominal vascular, and assessment of the reproductive tract. Designed to help prepare individuals for the National Board for credentialing as a Registered Vascular Technologist. [Transferability: CSU]

DMS 60A CRITIQUE & PATHOLOGY I 2 Units
Prerequisite: Admission to the Diagnostic Medical Sonography Program.
2 hours lecture.
Interpretation and critique of normal and abnormal anatomy with correlation of didactic, clinical and image information. Emphasis on communication skills via written and oral case presentations and critiques. [Transferability: CSU]

DMS 60B CRITIQUE & PATHOLOGY II 1 Unit
Prerequisite: Admission to Diagnostic Medical Sonography Program.
1 hour lecture.
Interpretation and critique of normal and abnormal anatomy with correlation of didactic, clinical and image information. Written and oral case presentations with emphasis on abdominal subjects. [Transferability: CSU]

DMS 60C CRITIQUE & PATHOLOGY III 1 Unit
Prerequisite: Admission to the Diagnostic Medical Sonography Program.
1 hour lecture.
Interpretation and critique of normal and abnormal anatomy with correlation of didactic, clinical and image information. Written and oral case presentations with emphasis on gynecological and abdominal subjects. [Transferability: CSU]

DMS 60D CRITIQUE & PATHOLOGY IV 1 Unit
Prerequisite: Admission to the Diagnostic Medical Sonography Program.
1 hour lecture.
Interpretation and critique of normal and abnormal anatomy with correlation of didactic, clinical and image information. Written and oral case presentations with emphasis on obstetrical subjects. [Transferability: CSU]

DMS 60E CRITIQUE & PATHOLOGY V 1 Unit
Prerequisite: Admission to the Diagnostic Medical Sonography Program.
1 hour lecture.
Interpretation and critique of normal and abnormal anatomy with correlation of didactic, clinical and image information. Written and oral case presentations with emphasis on superficial parts, pediatric, neonatal and vascular subjects. [Transferability: CSU]

DMS 60F CRITIQUE & PATHOLOGY VI 1 Unit
Prerequisite: Admission to the Diagnostic Medical Sonography Program.
1 hour lecture.
Interpretation and critique of normal and abnormal anatomy with correlation of didactic, clinical and image information. Written and oral case presentations with emphasis on superficial parts, pediatric, neonatal and vascular subjects. [Transferability: CSU]

DMS 70A CLINICAL PRECEPTORSHIP I 8.5 Units
Prerequisite: DMS 70A.
32 hours laboratory, 1 hour skills, 1 hour research & presentation.
This is a 13 week course.
A continuation of DMS 72A. This preceptorship is to obtain the technical expertise with emphasis on mastery of knowledge, skills, and abilities required performing sonographic studies and procedures. The major emphasis is on elementary level for abdominal and gynecological examinations as to delineate complete anatomic and functional information for interpretation. [Transferability: CSU]

DMS 70B CLINICAL PRECEPTORSHIP II 8 Units
Prerequisite: DMS 70A.
32 hours laboratory, 1 hour skills, 1 hour case research & presentation.
This is a 12 week course.
Designed as a preceptorship in a medical setting to obtain the technical expertise with emphasis on mastery of knowledge, skills, and abilities required performing sonographic studies and procedures. The student is exposed to varied methodologies and practice philosophies in a variety of clinical settings. The major emphasis is on the knowledge and performance for abdominal, obstetrics, and gynecology examinations. [Transferability: CSU]

DMS 70C CLINICAL PRECEPTORSHIP III 8.5 Units
Prerequisite: DMS 70B.
32 hours laboratory, 1 hour skills, 1 hour case research & presentation.
This is a 13 week course.
Designed as a preceptorship in a medical setting to obtain the technical expertise with emphasis on mastery of knowledge, skills, and abilities required performing sonographic studies and procedures. The major emphasis is on intermediate-advanced level of knowledge and competency for abdominal, gynecology, obstetrics, and vascular sonography. [Transferability: CSU]

DMS 70D CLINICAL PRECEPTORSHIP IV 8.5 Units
Prerequisite: DMS 70C.
32 hours laboratory, 1 hour skills, 1 hour case research & presentation.
This is a 13 week course.
Designed as a preceptorship in a medical setting to obtain the technical expertise with emphasis on the advanced mastery of knowledge, skills, and abilities required performing all types of sonographic studies and procedures. [Transferability: CSU]

DMS 70E CLINICAL PRECEPTORSHIP V 8.5 Units
Prerequisite: DMS 70D.
32 hours laboratory, 1 hour skills, 1 hour case research & presentation.
This is a 13 week course.
Designed as a preceptorship in a medical setting to obtain the technical expertise with emphasis on the advanced-graduate mastery of knowledge, skills, and abilities required performing all types of sonographic studies and procedures. The major emphasis is on terminal competencies leading to program completion. [Transferability: CSU]

DMS 72A DIAGNOSTIC MEDICAL SONOGRAPHY PROCEDURES & APPLICATIONS 8 Units
Prerequisite: Admission to Diagnostic Medical Sonography Program.
1 hour lecture, 32 hours laboratory.
Instruction to develop the fundamental skills, procedures and applications for sonographic image acquisition. Includes instruction in establishing technical quality, interpretation, analysis, and case presentation. Includes hands-on participation in a structured lab setting with emphasis on simulation and live scanning exercises plus clinical preceptorship. [Transferability: CSU]
ECON 1A PRINCIPLES OF MACROECONOMICS 5 Units
Advisory: Eligibility for ENGL 1A or ESLL 26.
Fundamental economic concepts; determination of national income and employment; income fluctuation; money and the banking system; government monetary and fiscal policies; current economic problems; economic development; international trade. ECON 1A or ECON 1B may be taken in either order. [Foothill GE: Social & Behavioral Sciences; Transferability: UC/CSU]

ECON 1B PRINCIPLES OF MICROECONOMICS 5 Units
Advisory: Eligibility for ENGL 1A or ESLL 26.
5 hours lecture.

ECON 9 POLITICAL ECONOMY 4 Units
Advisory: Not open to students with credit in POLI 9.
4 hours lecture.
Overview of political economy emphasizing the interplay between economics and politics in the formulation of public policy. Policy issues of current significance emphasized. [Foothill GE: Social & Behavioral Sciences; Transferability: UC/CSU]

ECON 25 INTRODUCTION TO THE GLOBAL ECONOMY 4 Units
Advisory: ECON 1A.
4 hours lecture.
Analysis of increasing economic integration in the post-WW II era with a focus on international trade and investment. Introduction to international economic organizations such as the WTO and IMF. [Foothill GE: Social & Behavioral Sciences; Transferability: UC/CSU]

ECON 34H HONORS INSTITUTE SEMINAR 1 Unit
Formerly: ECON 34
Prerequisite: Honors Institute participant.
1 hour lecture.
A seminar in directed readings, discussions and projects in economics. Specific topics to be determined by the instructor. [Transferability: CSU; UC credit may be granted after transfer and upon portfolio review.]

ECON 35 DEPARTMENT HONORS PROJECTS 1 Unit
May be taken 6 times for credit.
1 hour lecture.
Seminar in readings, research, critical techniques and practice. Specific topics vary. [Transferability: CSU]

ECON 36 SPECIAL PROJECTS IN ECONOMICS 1 Unit
May be taken 6 times for credit.
Any combination of ECON 36–36Z may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit.
1 hour lecture for each unit of credit.
Advanced readings research, and/or project in economics. Specific topics determined in consultation with instructor. [Transferability: CSU]

EDUC 50 PRINCIPLES OF EDUCATION: THE TEACHING CHALLENGE 4 Units
4 hours lecture.
Exploration of the professional field of education for those interested in the educational system of the United States. Particular emphasis placed upon learning to understand the educational system in California. [Transferability: UC/CSU]

EDUC 301 INSTRUCTIONAL METHODS & MEDIA 1 Unit
EDUC 301X 2 Units
EDUC 301Y 3 Units
EDUC 301Z 4 Units
Non-degree applicable credit course.
Advisory: Pass/No Pass.
Any combination of EDUC 301–301Z may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit.
1 hour lecture for each unit of credit.
Analysis, selection and application of the methods, media and materials which facilitate learning in subjects commonly taught in the community college with emphasis on culturally diverse student populations; including psychology of skills and learning; motivation; professional/ community resources; content preparation, presentation, evaluation.
EMERGENCY MEDICAL TECHNICIAN

Biological & Health Sciences (650) 949-6955 www.foothill.edu/bio/programs/emt/

EMT 303 EMERGENCY MEDICAL TECHNICIAN: 1.5 Units BASIC CONTINUING EDUCATION
Prerequisite: Students must either possess a current EMT-1 certificate or a certification which has been expired for no more than 24 months (must complete before the end of that month); current certification in American Red Cross CPR-BLS. May be taken 6 times for credit. 3 hours lecture-laboratory.
This is a 36 hour course which meets the education requirements as specified by the California Emergency Medical Services Authority and the Emergency Medical Authority of Santa Clara County. It is designed for both pre-employed personnel and those persons currently employed by a fire department within the County of Santa Clara. It will be a review and update the knowledge and skills required for basic certification.

EMT 304 EMERGENCY MEDICAL TECHNICIAN: 3 Units BASIC PART A
Prerequisite: HLTH 53 or First Responder Course or equivalent work experience as determined by the instructor. 7 hours lecture-laboratory.
This course is designed to instruct a student to the level of Emergency Medical Technician-Basic who serves as a vital link in the chain of the health care team. It is recognized that the majority of prehospital emergency medical care will be provided by the EMT-Basic. This course includes all skills necessary for the individual to provide emergency medical care at a basic life support level with a fire department, or other specialized service. This course is the first of two courses required to be eligible to take the California written and practical exam for certification as an Emergency Medical Technician I.

EMT 305 EMERGENCY MEDICAL TECHNICIAN: 4 Units BASIC PART B
Prerequisite: Successful completion of EMT 304 in the last six months. Advisory: EMT 305 is part two of two courses required to be eligible to take the California State written and practical exam for certification as an Emergency Medical Technician I. 7 hours lecture-laboratory, 1.5 hours clinic.
This course is the second of two courses required to be eligible to take the California State written and practical exam for certification as an Emergency Medical Technician I. Designed to instruct a student to the level of Emergency Medical Technician-Basic who serves as a vital link in the chain of the health care team. This course includes all skills necessary for the individual to provide emergency medical care at a basic life support level with a fire department, ambulance, or other specialized service.

EMERGENCY MEDICAL TECHNICIAN - PARAMEDIC

Biological & Health Sciences (650) 949-6955 www.foothill.edu/bio/programs/paramed/

EMTP 60A MOBILE INTENSIVE CARE 11 Units PARAMEDIC PROGRAM: COGNITIVE & AFFECTIVE IIA
Formerly: EMTP 100A
Prerequisite: Admission to the Paramedic Program. Advisory: Not open to students with credit in EMTP 100A.
Corequisite: EMTP 60B. 11 hours lecture.
The cognitive and affective basis for EMT students wishing to become EMT paramedics. The paramedic: anatomy and physiology; EMS systems/roles and responsibilities; patient assessment; venous access and medication administration; airway; pharmacology; general principles of pathophysiology; cardiology; the well-being of the paramedic; illness and injury prevention; medical/legal issues; ethics; life span development/human development; therapeutic communications; patient communication; patient history taking; techniques of physical examination; clinical decision making/critical thinking; communications; and documentation. [Transferability: CSU]

EMTP 60B MOBILE INTENSIVE CARE 8.5 Units PARAMEDIC PROGRAM: COGNITIVE, PSYCHOMOTOR & AFFECTIVE IIB
Formerly: EMTP 100B
Prerequisite: Admission to the Paramedic Program. Corequisite: EMTP 60A. 5.5 hours lecture, 4 hours lecture-laboratory, 3 hours laboratory.
The cognitive, psychomotor, and affective basis for EMT students wishing to become EMT paramedics. The paramedic: anatomy and physiology; proper hand washing; personal protective equipment; patient assessment; intravenous access; intraosseous infusion; pharmacology; medication administration; airway management; endotracheal intubation, oropharyngeal airway, nasopharyngeal airway, suctioning; advanced cardiac life support, ambulance 911 call simulations and case studies; synchronized cardioversion; transthoracic pacing; defibrillation; cardiovascular chest pain emergency 911 call simulations; end tidal carbon dioxide monitoring; capnography; 12 lead ECG interpretation. [Transferability: CSU]

EMTP 61A MOBILE INTENSIVE CARE 11 Units PARAMEDIC PROGRAM: COGNITIVE & AFFECTIVE IIA
Formerly: EMTP 100B
Prerequisite: EMT 60A and 60B. Advisory: Not open to students with credit in EMTP 100B.
Corequisite: EMTP 61A and 63A. 11 hours lecture.
The cognitive and affective basis for EMT students wishing to become EMT paramedics. The paramedic: anatomy and physiology; pharmacology; ambulance 911 call simulations and case studies in the following areas: respiratory, neurologic, endocrine, gastrointestinal, renal & urologic, hematologic, environmental, behavioral emergencies, toxicology; substance abuse and poisoning, allergies and anaphylaxis, infectious and communicable diseases, and pediatric advanced life support. [Transferability: CSU]

EMTP 61B MOBILE INTENSIVE CARE 8.5 Units PARAMEDIC PROGRAM: COGNITIVE, AFFECTIVE & PSYCHOMOTOR IIB
Formerly: EMTP 100B
Prerequisite: EMTP 60A and 60B. Advisory: Not open to students with credit in EMTP 100B.
Corequisite: EMTP 61A and 63A. 5.5 hours lecture, 4 hours lecture-laboratory, 3 hours laboratory.
The cognitive, psychomotor, and affective basis for EMT students wishing to become EMT paramedics. The paramedic: anatomy and physiology; patient assessment; respiratory ambulance 911 call simulations and case studies; nebulizer/BVM set-up; pleural decompression; digital intubation; foreign body airway obstruction; neurological ambulance 911 call simulations and case studies; 12 lead ECG interpretation; diabetic ambulance 911 call simulations and case studies; blood glucose analysis; medication administration; pharmacology; pediatric advanced life support ambulance 911 call simulations and case studies; non-traumatic abdominal ambulance 911 call simulations and case studies; bleeding control & shock management; pressure infusers; intubation with spinal immobilization; intravenous access; overdose and poisoning ambulance 911 call simulations and case studies. [Transferability: CSU]

EMTP 62A MOBILE INTENSIVE CARE 11 Units PARAMEDIC PROGRAM: COGNITIVE & AFFECTIVE IIA
Formerly: EMTP 100C
Prerequisite: EMT 60A, 60B, 61A, and 61B. Advisory: Not open to students with credit in EMTP 100C.
Corequisite: EMTP 62B. 11 hours lecture.
The cognitive and affective basis for EMT students wishing to become EMT paramedics. The paramedic: anatomy and physiology; pharmacology; ambulance operations; medical incident command; terrorism and weapons of mass destruction; rescue awareness and operations.
hazardous material incidents; crime scene awareness; ambulance 911 call simulations and case studies for the following topics: prehospital trauma life support; neonatology; pediatrics; geriatrics; abuse, neglect, and assault; gynecology; obstetrics; patients with special challenges; chronic care patients. [Transferability: CSU]

EMTP 62B MOBILE INTENSIVE CARE 8.5 Units
PARAMEDIC PROGRAM: COGNITIVE, AFFECTIVE & PSYCHOMOTOR IIB
Prerequisite: EMTP 60A, 60B, 61A, and 61B.
Corequisite: EMTP 62A.
5.5 hours lecture, 4 hours lecture-laboratory, 3 hours laboratory.
The cognitive and affective basis for EMT students wishing to become EMT paramedics. The paramedic: anatomy and physiology; pharmacology; ambulance operations; medical incident command; terrorism and weapons of mass destruction; rescue awareness and operations hazardous material incidents; crime scene awareness; ambulance 911 call simulations and case studies for the following topics: prehospital trauma life support; neonatology; pediatrics; geriatrics; abuse, neglect, and assault; gynecology; obstetrics; patients with special challenges; chronic care patients. [Transferability: CSU]

EMTP 63A MOBILE INTENSIVE CARE 3 Units
PARAMEDIC PROGRAM: HOSPITAL SPECIALTY ROTATIONS
Formerly: EMTP 102
Prerequisite: EMTP 60A and 60B.
Advisory: Not open to students with credit in EMTP 102.
Corequisites: EMTP 61A and 61B.
May be taken 4 times for credit.
1.5 hour lecture, 6.5 hours clinic.
Specialty hospital rotations in the following departments: pediatrics, pediatric intensive care unit, labor and delivery, surgery (airway management), respiratory therapy, and other selected hospital areas. [Transferability: CSU]

EMTP 63B MOBILE INTENSIVE CARE 5 Units
PARAMEDIC PROGRAM: HOSPITAL EMERGENCY DEPARTMENT ROTATIONS
Formerly: EMTP 102
Prerequisite: EMTP 60A and 60B.
Advisory: Not open to students with credit in EMTP 102.
Corequisite: Completion of, or concurrent enrollment in EMTP 63A.
May be taken 4 times for credit.
2.5 hours lecture, 12 hours clinic.
The hospital emergency department rotations give the paramedic student an opportunity to take the paramedic theoretical knowledge, laboratory skills and 911 ambulance call simulations, and appropriate attitudes learned in the classroom and apply them to live patients in a controlled setting with the assistance of the hospital preceptor/s and faculty in preparation for the for the chaotic, uncontrolled environment of the ambulance field internship. [Transferability: CSU]

EMTP 63C MOBILE INTENSIVE CARE 3 Units
PARAMEDIC PROGRAM: EXTENSION HOSPITAL ROTATION
Prerequisite: EMTP 61A and 61B.
Corequisite: Completion of, or concurrent enrollment in EMTP 62A, 62B, 63A and 63B.
May be taken 4 times for credit.
16 hours of clinic.
Extended hospital rotations. Offers additional period of clinical exposure for students needing further clinical time to develop requisite skills. The hospital emergency department and specialty rotations give the paramedic student an opportunity to take the paramedic theoretical knowledge, laboratory skills and 911 ambulance call simulations, and appropriate attitudes learned in the classroom and apply them to live patients in a controlled setting with the assistance of the hospital preceptor/s and faculty in preparation for the for the chaotic, uncontrolled environment of the ambulance field internship. [Transferability: CSU]

EMTP 64A MOBILE INTENSIVE CARE 9.5 Units
PARAMEDIC PROGRAM: AMBULANCE FIELD INTERNSHIP
Formerly: EMTP 103A
Prerequisite: EMTP 62B, 63A and 63B.
Advisory: Not open to students with credit in EMTP 103A.
Corequisite: EMTP 64B.
May be taken 4 times for credit.
1.5 hours of lecture, 40 hours clinic.
Students are required to take the theoretical knowledge from the classroom, the laboratory simulations on manikins, and appropriate attitudes learned in the classroom, the hospital-clinical experience on live patients and combine these components to function as an intern responding on a 911 ambulance to ill and injured patients while being instructed and evaluated by a field preceptor. The student has the daunting task of initiating, providing, and directing entire emergency patient care while in a sometimes chaotic, uncontrolled environment. [Transferability: CSU]

EMTP 64B MOBILE INTENSIVE CARE 9.5 Units
PARAMEDIC PROGRAM: AMBULANCE FIELD INTERNSHIP
Formerly: EMTP 103B
Prerequisite: EMTP 62A, 62B, 63A and 63B.
Advisory: Not open to students with credit in EMTP 103B.
Corequisite: EMTP 64A.
May be taken 4 times for credit.
1.5 hours of lecture, 40 hours clinic.
Students are required to take the theoretical knowledge from the classroom, the laboratory simulations on manikins, and appropriate attitudes learned in the classroom, the hospital-clinical experience on live patients and combine these components to function as an intern responding on a 911 ambulance to ill and injured patients while being instructed and evaluated by a field preceptor. The student has the daunting task of initiating, providing, and directing entire emergency patient care while in a sometimes chaotic, uncontrolled environment. [Transferability: CSU]

EMTP 64C MOBILE INTENSIVE CARE 9.5 Units
PARAMEDIC PROGRAM: EXTENSION AMBULANCE FIELD INTERNSHIP
Prerequisite: EMTP 62B, 63A and 63B.
Corequisite: EMTP 64D.
May be taken 4 times for credit.
1.5 hour lecture, 40 hours clinic.
Extended ambulance internship. Offers additional period of clinical exposure for students needing further clinical time to develop requisite skills. Students are required to take the theoretical knowledge from the classroom, the laboratory simulations on manikins, and appropriate attitudes learned in the classroom, the hospital-clinical experience on live patients and combine these components to function as an intern responding on a 911 ambulance to ill and injured patients while being instructed and evaluated by a field preceptor. The student has the daunting task of initiating, providing, and directing entire emergency patient care while in a sometimes chaotic, uncontrolled environment. [Transferability: CSU]

EMTP 64D MOBILE INTENSIVE CARE 9.5 Units
PARAMEDIC PROGRAM: EXTENSION AMBULANCE FIELD INTERNSHIP
Prerequisite: EMTP 64A and 64B.
Corequisites: EMTP 64C.
May be taken 4 times for credit.
1.5 hour lecture, 40 hours clinic.
Extended ambulance internship. Offers additional period of clinical exposure for students needing further clinical time to develop requisite skills. Students are required to take the theoretical knowledge from the classroom, the laboratory simulations on manikins, and appropriate attitudes learned in the classroom, the hospital-clinical experience on live patients and combine these components to function as an intern responding on a 911 ambulance to ill and injured patients while being instructed and evaluated by a field preceptor. The student has the
### EMTP 65A MOBILE INTENSIVE CARE PARAMEDIC PROGRAM: CONTINUING EDUCATION-REFRESHER AMBULANCE FIELD EXPERIENCE

**Prerequisite:** Paramedic licensure or certification and/or paramedic national registry status.  
May be taken 4 times for credit.  
2 hours clinic.  
Continuing education and refresher of the ambulance field experience for students who are licensed and/or nationally registered as paramedics. Offers additional period of clinical exposure for students needing further clinical time to develop and enhance paramedic knowledge, psychomotor skills, and attitudes. Students are required to take the theoretical knowledge from the classroom, laboratory simulations on manikins, and appropriate attitudes learned in the classroom, the hospital-clinical experience on live patients and combine these components to function as an intern responding on a 911 ambulance to ill and injured patients while being instructed and evaluated by a field preceptor. The student has the daunting task of initiating, providing, and directing entire emergency patient care in a sometimes chaotic, uncontrolled environment.  
[Transferability: CSU]

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### EMTP 65B MOBILE INTENSIVE CARE PARAMEDIC PROGRAM: CONTINUING EDUCATION-REFRESHER AMBULANCE FIELD EXPERIENCE

**Prerequisite:** Paramedic licensure, certification, and/or national registry status.  
4 clinic hours.  
Continuing education and refresher of the ambulance field experience for students who are licensed and/or nationally registered as paramedics. Offers additional period of clinical exposure for students needing further clinical time to develop and enhance paramedic knowledge, psychomotor skills, and attitudes. Students are required to take the theoretical knowledge from the classroom, laboratory simulations on manikins, and appropriate attitudes learned in the classroom, the hospital-clinical experience on live patients and combine these components to function as an intern responding on a 911 ambulance to ill and injured patients while being instructed and evaluated by a field preceptor. The student has the daunting task of initiating, providing, and directing entire emergency patient care in a sometimes chaotic, uncontrolled environment.  
[Transferability: CSU]

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### EMTP 65C MOBILE INTENSIVE CARE PARAMEDIC PROGRAM: CONTINUING EDUCATION-REFRESHER AMBULANCE FIELD EXPERIENCE

**Prerequisite:** Paramedic licensure or certification and/or national registry status.  
May be taken 4 times for credit.  
6 hours clinic.  
Continuing education and refresher of the ambulance field experience for students who are licensed and/or nationally registered as paramedics. Offers additional period of clinical exposure for students needing further clinical time to develop and enhance paramedic knowledge, psychomotor skills, and attitudes. Students are required to take the theoretical knowledge from the classroom, laboratory simulations on manikins, and appropriate attitudes learned in the classroom, the hospital-clinical experience on live patients and combine these components to function as an intern responding on a 911 ambulance to ill and injured patients while being instructed and evaluated by a field preceptor. The student has the daunting task of initiating, providing, and directing entire emergency patient care in a sometimes chaotic, uncontrolled environment.  
[Transferability: CSU]

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### EMTP 65D MOBILE INTENSIVE CARE PARAMEDIC PROGRAM: CONTINUING EDUCATION-REFRESHER AMBULANCE FIELD EXPERIENCE

**Prerequisite:** Paramedic licensure or certification and/or national registry status.  
May be taken 4 times for credit.  
8 hours clinic.  
Continuing education and refresher of the ambulance field experience for students who are licensed and/or nationally registered as paramedics. Offers additional period of clinical exposure for students needing further clinical time to develop and enhance paramedic knowledge, psychomotor skills, and attitudes. Students are required to take the theoretical knowledge from the classroom, laboratory simulations on manikins, and appropriate attitudes learned in the classroom, the hospital-clinical experience on live patients and combine these components to function as an intern responding on a 911 ambulance to ill and injured patients while being instructed and evaluated by a field preceptor. The student has the daunting task of initiating, providing, and directing entire emergency patient care in a sometimes chaotic, uncontrolled environment.  
[Transferability: CSU]

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### EMTP 65E MOBILE INTENSIVE CARE PARAMEDIC PROGRAM: CONTINUING EDUCATION-REFRESHER AMBULANCE FIELD EXPERIENCE

**Prerequisite:** Paramedic licensure or certification and/or national registry status.  
May be taken 4 times for credit.  
10 hours clinic.  
Continuing education and refresher of the ambulance field experience for students who are licensed and/or nationally registered as paramedics. Offers additional period of clinical exposure for students needing further clinical time to develop and enhance paramedic knowledge, psychomotor skills, and attitudes. Students are required to take the theoretical knowledge from the classroom, laboratory simulations on manikins, and appropriate attitudes learned in the classroom, the hospital-clinical experience on live patients and combine these components to function as an intern responding on a 911 ambulance to ill and injured patients while being instructed and evaluated by a field preceptor. The student has the daunting task of initiating, providing, and directing entire emergency patient care in a sometimes chaotic, uncontrolled environment.  
[Transferability: CSU]

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### EMTP 65F MOBILE INTENSIVE CARE PARAMEDIC PROGRAM: CONTINUING EDUCATION-REFRESHER AMBULANCE FIELD EXPERIENCE

**Prerequisite:** Paramedic licensure or certification and/or national registry status.  
May be taken 4 times for credit.  
12 hours clinic.  
Continuing education and refresher of the ambulance field experience for students who are licensed and/or nationally registered as paramedics. Offers additional period of clinical exposure for students needing further clinical time to develop and enhance paramedic knowledge, psychomotor skills, and attitudes. Students are required to take the theoretical knowledge from the classroom, laboratory simulations on manikins, and appropriate attitudes learned in the classroom, the hospital-clinical experience on live patients and combine these components to function as an intern responding on a 911 ambulance to ill and injured patients while being instructed and evaluated by a field preceptor. The student has the daunting task of initiating, providing, and directing entire emergency patient care in a sometimes chaotic, uncontrolled environment.  
[Transferability: CSU]

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EMTP 65G  MOBILE INTENSIVE CARE 3.5 Units
PARAMEDIC PROGRAM:
CONTINUING EDUCATION-
REFRESHER AMBULANCE
FIELD EXPERIENCE
Prerequisite: Paramedic licensure or certification and/or national registry status.
May be taken 4 times for credit.
14 hours clinic.
Continuing education and refresher of the ambulance field experience for students who are licensed and/or nationally registered as paramedics. Offers additional period of clinical exposure for students needing further clinical time to develop and enhance paramedic knowledge, psychomotor skills, and attitudes. Students are required to take the theoretical knowledge from the classroom, the laboratory simulations on manikins, and appropriate attitudes learned in the classroom, the hospital-clinical experience on live patients and combine these components to function as an intern responding on a 911 ambulance to ill and injured patients while being instructed and evaluated by a field preceptor. The student has the daunting task of initiating, providing, and directing entire emergency patient care while in a sometimes chaotic, uncontrolled environment. [Transferability: CSU]

EMTP 65H  MOBILE INTENSIVE CARE 4 Units
PARAMEDIC PROGRAM:
CONTINUING EDUCATION-
REFRESHER AMBULANCE
FIELD EXPERIENCE
Prerequisite: Paramedic licensure or certification and/or national registry status.
May be taken 4 times for credit.
16 hours clinic.
Continuing education and refresher of the ambulance field experience for students who are licensed and/or nationally registered as paramedics. Offers additional period of clinical exposure for students needing further clinical time to develop and enhance paramedic knowledge, psychomotor skills, and attitudes. Students are required to take the theoretical knowledge from the classroom, the laboratory simulations on manikins, and appropriate attitudes learned in the classroom, the hospital-clinical experience on live patients and combine these components to function as an intern responding on a 911 ambulance to ill and injured patients while being instructed and evaluated by a field preceptor. The student has the daunting task of initiating, providing, and directing entire emergency patient care while in a sometimes chaotic, uncontrolled environment. [Transferability: CSU]

ENGR 34H  HONORS INSTITUTE SEMINAR 1 Unit
IN ENGINEERING
Prerequisite: Honors Institute participant.
1 hour lecture.
A seminar in directed readings, discussions and projects in engineering. Specific topics to be determined by the instructor. [Transferability: CSU; UC credit may be granted after transfer and upon portfolio review.]

ENGR 35  STATICS 5 Units
Prerequisite: MATH 1B and PHYS 4A.
Advisory: ENGR 27.
5 hours lecture.
Principles of statics as applied to particles and rigid bodies in two and three dimensions under concentrated and distributed force systems. Equilibrium conditions in structures, machines, beams and cables. Determination of centroids and moments of inertia. Dry friction and methods of virtual work. [Transferability: UC/CSU]

ENGR 36  SPECIAL PROJECTS IN ENGINEERING 1 Unit
ENGR 36X & TECHNOLOGY 2 Units
ENGR 36Y 3 Units
Advisory: Previous experience in engineering recommended.
Any combination of ENGR 36–36Y may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit.
3 hours laboratory for each unit of credit.
For the exceptional student. The student designs, assembles, and evaluates a project appropriate to his major and writes a report covering the theory or background for the project, its design and construction, and its application. The student is encouraged to work with a minimum of direct supervision. [Transferability: CSU]

ENGR 37  INTRODUCTION TO CIRCUIT ANALYSIS 5 Units
Prerequisite: MATH 1B and PHYS 4B.
5 hours lecture, 2 hours TBA.
The analysis of lumped, linear circuits, natural and forced circuit response. [Transferability: UC/CSU]

ENGR 37L  CIRCUIT ANALYSIS LABORATORY 2 Units
Corequisite: ENGR 37.
1 hour lecture-laboratory, 3 hours laboratory.
Practical verification of theorems and concepts learned in ENGR 37 (Circuit Analysis) through experimentation. Included will be experiments in DC and AC circuits involving the utilization of a variety of instruments such as DC/AC meters, regulated power supplies, signal generators, oscilloscopes and frequency counters. [Transferability: UC/CSU]

ENGR 45  PROPERTIES OF MATERIALS 5 Units
Prerequisite: CHEM 1B and MATH 1C.
Corequisite: Completion of, or concurrent enrollment in PHYS 4B.
4 hours lecture, 1 hour lecture-laboratory, 2 hours laboratory, 2 hours TBA.
Properties of engineering materials related to basic structure; applications to the selection and use of engineering materials. [Transferability: UC/CSU]

ENGR 49  ENGINEERING PROFESSION 1 Unit
1 hour lecture.
A study of the engineering profession, its requirements, opportunities and responsibilities. A preview of the applications of basic science to engineering problems. Review of engineering case studies. [Transferability: UC/CSU]
ENGLISH

Language Arts  (650) 949-7250
www.foothill.edu/la/

ENGL 1A  COMPOSITION & READING  5 Units
Prerequisite: Eligibility based on appropriate assessment information or successful completion of assigned courses in basic reading and writing skills.
Advisory: Not open to students with credit in ENGL 1AH.
5 hours lecture.
The techniques and practice of expository and argumentative writing based on critical reading and thinking about texts. Reading focused primarily on works of non-fiction prose, chosen to represent a broad spectrum of opinions and ideas, writing styles, and cultural experiences. Fulfills the Foothill College reading and composition requirement for the AA/AS degree and the university-transfer general education requirement in English reading and written composition. Open laboratory can be access to Academic Skills courses, English Writing Center, on-line resources, or, if assigned by instructor, individual/collaborative activities related to course. [Foothill GE: English; Transferability: UC/CSU]

ENGL 1AH  HONORS COMPOSITION & READING  5 Units
Prerequisite: Eligibility based on appropriate assessment information; Honors Institute participant.
Advisory: Not open to students with credit in ENGL 1A.
5 hours lecture.
The techniques and practice of expository and argumentative writing based on critical reading and thinking about texts. Reading focused primarily on works of non-fiction prose, chosen to represent a broad spectrum of opinions and ideas, writing styles, and cultural experiences. Fulfills the Foothill College reading and composition requirement for the AA/AS degree and the university-transfer general education requirement in English reading and written composition. Open laboratory can be access to Academic Skills courses, English Writing Center, on-line resources, or, if assigned by instructor, individual/collaborative activities related to course. [Foothill GE: English; Transferability: UC/CSU]

ENGL 1B  COMPOSITION, CRITICAL READING & THINKING  5 Units
Prerequisite: ENGL 1A or ESLL 26.
Advisory: Not open to students with credit in ENGL 1B.
5 hours lecture.
Further development in the technique and practice of expository and argumentative writing, critical reading and thinking. Readings chosen to represent a broad spectrum of opinions and ideas, writing styles, and cultural experiences. Formal instruction in composition and critical thinking. Open laboratory can be access to Academic Skills courses, English Writing Center, on-line resources, or, if assigned by instructor, individual/collaborative activities related to course. [Foothill GE: Communication & Analytical Thinking; Transferability: UC/CSU]

ENGL 1BH  HONORS COMPOSITION, CRITICAL READING & THINKING  5 Units
Prerequisite: ENGL 1A; Honors Institute participant.
Advisory: Not open to students with credit in ENGL 1B.
5 hours lecture.
Further development in the technique and practice of expository and argumentative writing, critical reading and thinking. Readings chosen to represent a broad spectrum of opinions and ideas, writing styles, and cultural experiences. Formal instruction in composition and critical thinking. Open laboratory can be access to Academic Skills courses, English Writing Center, on-line resources, or, if assigned by instructor, individual/collaborative activities. Honors section offers a challenging intellectual environment for students intending to transfer to a four-year college or university. Class discussion and assignments focus on literature as a reflection of multiple perspectives, social constructs, and cultural values. Course fosters an understanding and appreciation of various literary genres and includes logic and literary theory. Emphasis on rhetorical strategies and stylistic refinements for effective persuasive writing across the disciplines. Enrichment activities include attendance at plays, author readings, public lectures, and independent or collaborative study on a contemporary author. [Foothill GE: Communication & Analytical Thinking; Transferability: UC/CSU]

ENGL 1C  ADVANCED COMPOSITION  4 Units
Formerly: ENGL 2
Prerequisite: ENGL 1A or ESLL 26.
Advisory: Not open to students with credit in ENGL 1CH or 2.
4 hours lecture
Advanced study and practice of expository and argumentative writing. Focus is on reading and writing assignments from across the disciplines to further improve and refine reading, grammar, composition, and critical thinking skills. Offered Spring Quarters. [Transferability: UC/CSU]

ENGL 1CH  HONORS ADVANCED COMPOSITION  4 Units
Prerequisite: ENGL 1A; Honors Institute participant.
Advisory: Not open to students with credit in ENGL 1C or 2.
4 hours lecture
Advanced study and practice of expository and argumentative writing. Focus on reading and writing assignments from across the disciplines to refine critical reading, rhetoric, writing style, and critical thinking skills. Offered Spring Quarter. Honors section is intensive in content, involving both reading and meta-analysis of complex texts. Includes collaborative evaluations of the content, evidence, organizing principles and style of a variety of texts. Course encourages students to examine assumptions, implications and unintended consequences of rhetorical and content choices. Includes focus on primary sources and the interpretations of these documents in contemporary writing. Course expands and enhances the student’s ability to write with fluency, effectiveness, and intellectual rigor. [Transferability: UC/CSU]

ENGL 3  TECHNICAL WRITING  5 Units
Prerequisite: ENGL 1A.
5 hours lecture.
Preparation of written texts for proposals, presentations, reports, user manuals, handbooks, newsletters, grants and applications, memos, brochures, email, and Internet Web sites. Emphasis on clear, concise language and visual document design. Logical organization and awareness of audience, purpose and process. Effective integration of text, graphics, charts, photos and illustrations. [Transferability: CSU]

ENGL 4  JOURNALISM  4 Units
Prerequisite: ENGL 1A or ESLL 26.
4 hours lecture.
Introduction to fundamental techniques of contemporary journalism in the information age. Emphasis on clear, accurate, concise writing. Awareness of purpose, process and audience expectations. Journalistic ethics. Practice in drafting, organizing, editing and revising for publication. [Foothill GE: Communication & Analytical Thinking; Transferability: UC/CSU]

ENGL 5  GAY & LESBIAN LITERATURE  4 Units
Prerequisite: Eligibility for ENGL 1A; not open to students with credit in ENGL 5H.
4 hours lecture.
Introduction to the history and development of gay and lesbian literature as a continuous theme in the development of mainstream literary traditions and, more recently, as a separate and distinct literary genre. Readings selected to represent a variety of historical periods and contrasting societal attitudes toward same-sex relationships, ranging from ancient Greek and Roman texts to contemporary American poetry, fiction, drama, and non-fiction prose. Emphasis on the emergence of contemporary gay/lesbian literatures and identities in the United States in the twentieth century within the broader context of on-going class, race, gender, religious, political, and aesthetic debates. Offered Fall Quarters. [Foothill GE: United States Cultures & Communities, Humanities; Transferability: UC/CSU]

All courses on this page are Title 5 degree applicable credit courses unless otherwise noted.
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ENGL 5H HONORS GAY & LESBIAN LITERATURE
Prerequisite: Honors Institute participant.
Advisory: Eligibility for ENGL 1A; not open to students with credit in ENGL 5.
4 hours lecture.
Introduction to the history and development of gay and lesbian literature as a continuous theme in the development of mainstream literary traditions and, more recently, as a separate and distinct literary genre. Readings selected to represent a variety of historical periods and contrasting societal attitudes towards same-sex relationships, ranging from ancient Greek and Roman texts to contemporary American poetry, fiction, drama, and non-fiction prose. Emphasis on the emergence of contemporary gay-lesbian literatures and identities in the United States in the twentieth century within the broader context of ongoing class, race, gender, religious, political, and aesthetic debates. Honors work challenges students to a greater level of sophistication in critical scholarship through the intensive research and literature reviews, critical essays, and opportunities for scholarly presentation. This honors course offers students an enriching and rigorous environment through learner-centered pedagogy, student-generated discussions, and self-directed projects. Students will also actively engage in in-depth analysis and critical evaluation of literary texts. Offered Fall Quarters. [Transferability: UC/CSU]

ENGL 7 NATIVE AMERICAN LITERATURE
Advisory: Eligibility for ENGL 1A; not open to students with credit in ENGL 7H.
4 hours lecture.
Introduction to the history, development, and diversity of Native American literatures from pre-contact civilizations to present-day tribal cultures. Readings in traditional creation myths, songs, and stories from a variety of tribal cultures; nineteenth and twentieth century autobiographical narratives; and significant works of fiction, poetry, and non-fiction prose by contemporary Native American authors. Emphasis on the specific religious, linguistic, historical, political and cultural context of Native American literary achievements. Offered Winter Quarters (rotated with ENGL 40) [Transferability: UC/CSU]

ENGL 7H HONORS NATIVE AMERICAN LITERATURE
Prerequisite: Honors Institute participant.
Advisory: Eligibility for ENGL 1A; not open to students with credit in ENGL 7.
4 hours lecture.
Introduction to the history, development, and diversity of Native American literatures from pre-contact civilizations to present-day tribal cultures. Readings in traditional creation myths, songs, and stories from a variety of tribal cultures; nineteenth and twentieth century autobiographical narratives; and significant works of fiction, poetry, and non-fiction prose by contemporary Native American authors. Emphasis on the specific religious, linguistic, historical, political and cultural context of Native American literary achievements. Honors work challenges students to be more analytical through expanded assignments including, but not limited to, research-driven literature reviews, reflection papers, and outside enrichment opportunities. The honors course offers accelerated students an enriching and demanding environment by means of a learner-centered pedagogy, student-generated and student led discussions, self-directed, yet supervised, creative projects, and the emphasis and application of higher-level thinking skills: analysis, synthesis and evaluation. [Transferability: UC/CSU]

ENGL 11 INTRODUCTION TO POETRY
Prerequisite: Eligibility for ENGL 1A.
Advisory: Not open to students with credit in ENGL 11H.
4 hours lecture.
Analysis and discussion of forms, techniques and meanings of poetry, with emphasis on modern examples in English or translation to develop the student’s ability to read, understand, and evaluate a poem. Offered Winter Quarters. [Foothill GE: Humanities; Transferability: UC/CSU]

ENGL 11H HONORS INTRODUCTION TO POETRY
Prerequisite: Eligibility for ENGL 1A; Honors Institute participant.
Advisory: Not open to students with credit in ENGL 11.
4 hours lecture.
Analysis and discussion of forms, techniques and meanings of poetry, with emphasis on modern examples in English or translation to develop the student’s ability to read, understand, and evaluate a poem. Honors work challenges students to be more analytical through expanded assignments including, but not limited to, research-driven literature reviews, reflection papers, and outside enrichment opportunities. The honors course offers accelerated students an enriching and demanding environment by means of a learner-centered pedagogy, student-generated and student led discussions, self-directed, yet supervised, creative projects, and the emphasis and application of higher-level thinking skills: analysis, synthesis and evaluation. [Transferability: UC/CSU]

ENGL 12 AFRICAN AMERICAN LITERATURE
Advisory: Eligibility for ENGL 1A.
4 hours lecture.
Literature by African Americans beginning in slavery and continuing on into the 20th and 21st centuries. Discovery of many of the current stereotypes in American cultural mythology about African Americans. Study of the complex and varying forms of resistance and creation African Americans have developed. Definition of issues and strategies in writings from the 19th, 20th and 21st centuries, including audience, identity (self), gender, family, culture, politics, spirituality and language. Offered Winter Quarters. [Foothill GE: United States Cultures & Communities, Humanities; Transferability: UC/CSU]

ENGL 14 INTRODUCTION TO CONTEMPORARY FICTION
Prerequisite: Eligibility for ENGL 1A.
4 hours lecture.
Selected fiction written between 1950 and the present, with emphasis on English, Canadian, and international works in translation. Students are introduced to various thematic and stylistic trends in contemporary fiction; use of current scientific discoveries, historical theories, religious and cultural developments. Offered Fall Quarters. [Foothill GE: Humanities; Transferability: UC/CSU]

ENGL 17 INTRODUCTION TO SHAKESPEARE
Prerequisite: Eligibility for ENGL 1A.
4 hours lecture.
Detailed analysis of representative sonnets, and history, tragedy, comedy, and romance dramas through lecture and discussion. Consideration of the Elizabethan world. Offered Spring Quarters. [Foothill GE: Humanities; Transferability: UC/CSU]

ENGL 22 WOMEN WRITERS
Advisory: Eligibility for ENGL 1A.
4 hours lecture.
An examination of the works of 19th and 20th Century multicultural women poets, novelists, dramatists, and essayists and their contribution to English and American literature. Includes independent research and the creation of a major project on author, genre, work or theme. Offered Spring Quarters. [Foothill GE: Humanities; Transferability: UC/CSU]
ENGL 23  MODERN ENGLISH: FUNCTION & GRAMMAR  4 Units
Prerequisite: Eligibility for ENGL 1A.
Advisory: Not open to students with credit in LING 23.
4 hours lecture.
Introduction to basic linguistic concepts in describing the functions and grammer of present-day English. Focus on grammatical features of standard American English, Black English, and other English varieties as they function in the diverse types of communication between Americans, as well as in global interaction. Analysis of modern English relevant for those interested in refining their English, students of ESL and foreign languages, and prospective writers and language teachers. Offered Winter Quarters. [Foothill GE: Humanities; Transferability: UC/CSU]

ENGL 25  INTRODUCTION TO DESCRIPTIVE & HISTORICAL LINGUISTICS  4 Units
Prerequisite: Eligibility for ENGL 1A.
Advisory: Not open to students with credit in ENGL 25H, LING 25 or 25H.
4 hours lecture.
Introduction to linguistic concepts in the study of structure, pattern, meaning, and change in language, with emphasis on British and American English. Introduction to historical linguistic theory and methods as applied to investigation of origin and development of spoken and written language, with focus on British, Standard American, and Black American English. Offered Fall Quarters. [Foothill GE: Humanities; Transferability: UC/CSU]

ENGL 25H  HONORS INTRODUCTION TO DESCRIPTIVE & HISTORICAL LINGUISTICS  4 Units
Prerequisite: Eligibility for ENGL 1A; Honors Institute participant.
Advisory: Not open to students with credit in ENGL 25, LING 25 or 25H.
4 hours lecture.
Introduction to linguistic concepts in the study of structure, pattern, meaning, and change in language, with emphasis on British and American English. Introduction to historical linguistic theory and methods as applied to investigation of origin and development of spoken and written language. Honors section offers rigorous preparation in linguistic studies for students intending to transfer to a four-year college or university. Two research or fieldwork projects are required. [Foothill GE: Humanities; Transferability: UC/CSU]

ENGL 26  LANGUAGE, MIND & SOCIETY  4 Units
Prerequisite: Eligibility for ENGL 1A.
Advisory: Not open to students with credit in LING 26.
4 hours lecture.
Introduction to methods of linguistic analysis and basic concepts in psycholinguistics and sociolinguistics. Topics include function of the brain in language acquisition and language loss by mono/bilingual children and adults; role of language in society; language variability in diverse ethnic groups of speakers and diverse social uses; education and language planning. Offered Spring Quarters. [Foothill GE: Humanities; Transferability: UC/CSU]

ENGL 31  LATINO/A LITERATURE  4 Units
Advisory: Eligibility for ENGL 1A.
4 hours lecture.
Reading and discussion of Latino/a literature and its relationship to social issues and identity politics of Latinos/as. Critical examination of fiction, poetry, essays, and drama by and about the Latino/a communities, including those of Mexican, Puerto Rican, Cuban, Caribbean, and South and Central American descent. Offered Spring Quarters (rotated with ENGL 41). [Foothill GE: United States Cultures & Communities, Humanities; Transferability: UC/CSU]

ENGL 34H  HONORS INSTITUTE SEMINAR IN ENGLISH  1 Unit
Formerly: ENGL 34
Prerequisite: Honors Institute participant.
May be taken 3 times for credit.
1 hour lecture.
A seminar in directed readings, discussions, and projects in English. Specific topics to be determined by the instructor. [Transferability: CSU; UC credit may be granted after transfer and upon portfolio review.]
ENGL 42C  INTRODUCTION TO DRAMATIC LITERATURE  4 Units
Prerequisite: Eligibility for ENGL 1A.
Advisory: Not open to students with credit in DRAM 2C or THTR 2C.
4 hours lecture.
Analysis of representative masterpieces of dramatic literature from the beginning of the 20th Century to the present. [Foothill GE: Humanities; Transferability: UC/CSU]

ENGL 46A  SURVEY OF ENGLISH LITERATURE  4 Units
Prerequisite: ENGL 1A or ESLL 26.
4 hours lecture.
Reading and critical analysis of representative works, emphasizing social and cultural backgrounds from Beowulf through Shakespeare, the Metaphysical Poets, and Milton. Offered Fall Quarters. [Foothill GE: Humanities; Transferability: UC/CSU]

ENGL 46B  SURVEY OF ENGLISH LITERATURE  4 Units
Prerequisite: ENGL 1A or ESLL 26.
4 hours lecture.
Reading and critical analysis of representative works, emphasizing social and cultural backgrounds, from the Restoration through the 18th Century and Romantic Period. Offered Winter Quarters. [Foothill GE: Humanities; Transferability: UC/CSU]

ENGL 46C  SURVEY OF ENGLISH LITERATURE  4 Units
Prerequisite: ENGL 1A or ESLL 26.
4 hours lecture.
Reading and critical analysis of representative works, emphasizing social and cultural backgrounds, from the Victorian to the Modern Period. Offered Spring Quarters. [Foothill GE: Humanities; Transferability: UC/CSU]

ENGL 48A  SURVEY OF EARLY AMERICAN LITERATURE: 1492–1864  4 Units
Prerequisite: ENGL 1A or ESLL 26.
4 hours lecture.
Representative works of American literature from Columbus’s first voyage in 1492 through the Civil War, focusing on the development of entirely new literary forms, voices, and perspectives which make American literature unique. Selections from Native American myths, legends, and autobiographies; reports of early Spanish explorers; English colonial histories and Puritan poetry; African American slave narratives and poems; Revolutionary War political texts; frontier tall tales; transcendentalist philosopher; gothic short stories; and romantic fiction. Special emphasis on the contributions of diverse cultures in forging American literature and identity. Offered Fall Quarters. [Foothill GE: United States Cultures & Communities, Humanities; Transferability: UC/CSU]

ENGL 48B  AMERICAN LITERATURE IN THE GILDED AGE: 1865–1914  4 Units
Prerequisite: ENGL 1A or ESLL 26.
4 hours lecture.
Introduction to representative works of multicultural American Literature in the wake of the Civil War (1865–1914) including satirical works by Mark Twain; the experimental poetry of Walt Whitman and Emily Dickinson; autobiographical and political texts by African American leaders Booker T. Washington and W.E.B. Du Bois; Mexican vaquero fiction; early Asian American texts; and Native American autobiographies. Emphasis on the radical innovations in literary forms, themes, language, and philosophy which shaped America’s new identity as an emerging world power within a period of fierce conflicts within American society over race, class, and gender roles. Offered Winter Quarters. [Foothill GE: United States Cultures & Communities, Humanities; Transferability: UC/CSU]

ENGL 48C  MODERN AMERICAN LITERATURE: 1914–PRESENT  4 Units
Prerequisite: ENGL 1A or ESLL 26.
4 hours lecture.
Introduction to multicultural American Literature in the Modern Age (1914–present) with emphasis on the courageous contributions and literary innovations of diverse authors of Asian American, African American, Anglo American, Latino American, and Native American heritage, including Harlem Renaissance authors such as Hughes and Hurston; the radically experimental fiction of Hemingway, Fitzgerald, and Faulkner; the rise of modernist poets such as Eliot, Stevens, and Williams; Beat Generation authors such as Kerouac and Ginsberg; Native American authors such as Momaday and Erdrich; feminist poets such as Plath and Rich; and Asian American writers such as Bulosan and Hong Kingston. Special emphasis on the role of these diverse writers in continuously redefining the nature of American literature in the 20th Century, and thereby reshaping American national identity as the United States becomes a global superpower. Offered Spring Quarters. [Foothill GE: United States Cultures & Communities, Humanities; Transferability: UC/CSU]

ENGL 50  SPECIAL TOPICS IN ENGLISH  4 Units
Formerly: ENGL 30
Advisory: Eligibility for ENGL 1A.
May be taken 2 times for credit.
4 hours lecture.
Intensive study of selected special topics in language and literature. Subjects vary from quarter to quarter. Consult current schedule for exact title. [Transferability: CSU]

ENGL 54  PROFESSIONAL WRITING SKILLS  4 Units
Prerequisite: Eligibility for ENGL 1A.
4 hours lecture.
Instruction in professional writing skills, small group and/or individualized internet course; covers eight complex sentence patterns, along with grammatical background and punctuation rules; conciseness in writing; and style and voice for professional writers. Skills applied to writing projects for both college courses and the workplace. Offered Winter Quarters. [Transferability: CSU]

ENGL 56  WRITING COLLEGE TRANSFER ESSAYS  1 Unit
Formerly: ENGL 156
Advisory: Eligibility for ENGL 1A.
May be taken 3 times for credit.
1 hour lecture.
A course designed for college-level writers to help them complete a satisfactory college transfer essay. Emphasis on projecting a personal voice and writing for a specific audience. [Transferability: CSU]

ENGL 80  INTRODUCTION TO TRAVEL WRITING  4 Units
Advisory: Eligibility for ENGL 1A.
4 hours lecture.
Techniques and practice of advanced expository writing techniques with a focus on travel writing including narrative structures, reportage, and ethnography. Formal instruction in critical thinking and focused reflection on travel experiences. Includes discussion on a broad spectrum of ideas and cultural experiences including publication markets. [Transferability: CSU]

ENGL 85A  LITERATURE ON LOCATION  1 Unit
Formerly: ENGL 180A
Advisory: Eligibility for ENGL 1A.
May be taken 3 times for credit.
1 hour lecture.
Lecture and discussion of selected short stories, novellas, novels, plays, poems, or memoirs. Course may focus on particular theme(s), contemporary social issues, cultural communities, authors, time periods, literary genres, forms, aesthetics. [Transferability: CSU]

ENGL 85B  LITERATURE ON LOCATION  1 Unit
Formerly: ENGL 180B
Advisory: Eligibility for ENGL 1A.
May be taken 3 times for credit.
1 hour lecture.
Lecture and discussion of selected short stories, novellas, novels, plays, poems, or memoirs. Course may focus on particular theme(s), contemporary social issues, cultural communities, authors, time periods, literary genres, forms, aesthetics. [Transferability: CSU]
ENGL 85C  LITERATURE ON LOCATION  1 Unit
Formerly: ENGL 180C
Advisory: Eligibility for ENGL 1A.
May be taken 3 times for credit.
1 hour lecture.
Lecture and discussion of selected short stories, novellas, novels, plays, poems, or memoirs. Course may focus on particular theme(s), contemporary social issues, cultural communities, authors, time periods, literary genres, forms, aesthetics. [Transferability: CSU]

ENGL 85D  LITERATURE ON LOCATION  1 Unit
Formerly: ENGL 180D
Advisory: Eligibility for ENGL 1A.
May be taken 3 times for credit.
1 hour lecture.
Lecture and discussion of selected short stories, novellas, novels, plays, poems, or memoirs. Course may focus on particular theme(s), contemporary social issues, cultural communities, authors, time periods, literary genres, forms, aesthetics. [Transferability: CSU]

ENGL 100  INTRODUCTION TO COLLEGE READING  5 Units
Non-degree applicable credit course.
Advisory: Not open to students with credit in ENGL 108.
5 hours lecture.
Techniques of critical analysis for reading-college level prose, focusing primarily on expository/argumentative essays and textbook materials. Students learn to comprehend text holistically, identifying and expressing critical elements of comprehension. Practice and testing to be done on authentic text of one or more page length and with written responses. Lecture, discussion, group work, and individualized instruction. Students who do not meet all of the expected outcomes of this course may be assigned a grade and units of credit in ENGL 205 and should repeat ENGL 100. Open laboratory can be access to Academic Skills courses, English Writing Center, on-line resources, or, if assigned by instructor, individual/collaborative activities related to course.

ENGL 104A  NARRATIVE READING & WRITING: PUENTE  5 Units
Advisory: Not open to students with credit in ENGL 108 or 100.
5 hours lecture.
Introduction to short narrative forms of college-level reading and writing: (auto)biography, narrative reporting, story-telling, interviews, summary, testimonials. Materials used to be theme-based from Latino/Mexican American authors. Narrative structure used to teach the fundamentals of analytical reading and writing. Lecture, discussion, group work, and individualized instruction. Students who do not meet all of the expected outcomes of this course may be assigned a grade and units of credit in ENGL 205 and should repeat ENGL 104A or ENGL 100/110 sequence.

ENGL 104B  ANALYTICAL READING & WRITING: PUENTE  5 Units
Prerequisite: ENGL 104A.
Advisory: Not open to students with credit in ENGL 108 or 110.
5 hours lecture.
Introduction to short analytical forms of college-level reading and writing: essays, critiques, editorials, reports, summary, commentary. Materials used to be theme-based from Latino/Mexican American authors. Discussion, group work, and individualized instruction. Students who do not meet all of the expected outcomes of this course may be assigned a grade and units of credit in ENGL 215 and should repeat ENGL 104B or ENGL 100/110 sequence.

ENGL 108  READING & WRITING ON SPECIAL TOPICS  10 Units
Non-degree applicable credit course.
Prerequisite: Must be eligible for both ENGL 100 and 110 based on assessment information.
Advisory: Not open to students who have completed ENGL 100 and/or 110.
10 hours lecture.
Course offers a team-taught collaborative approach to introduce students to college-level reading and writing skills. Class time is equally divided between critical reading applied to a themed collection of prose, e.g. textbook material, fiction, and expository/persuasive articles; and the creation of college-level essays and papers which use the themed readings as source material. Vocabulary and grammar skills are covered within the context of the readings and writing projects. Class format can include lecture, discussion, group projects, and individualized instruction. Students not meeting expected outcomes may be assigned an alternate credit grade.

ENGL 110  INTRODUCTION TO COLLEGE WRITING  5 Units
Prerequisite: Eligibility based on assessment or successful completion of ENGL 100.
Advisory: Not open to students with credit in ENGL 108.
5 hours lecture.
Explicit instruction and practice in writing expository essays, emphasizing clear sentence structure and logical development. Assignments include summary and synthesis of texts, critical analysis, as well as personal writing. Instruction includes rules of and practice on punctuation skills. Lecture, discussion, collaborative, and individualized instruction. Students not meeting all expected outcomes may be assigned a grade and units of credit in ENGL 215 and should repeat ENGL 110. Open laboratory can be access to Academic Skills courses, English Writing Center, on-line resources, or, if assigned by instructor, individual/collaborative activities related to course.

ENGL 114  PRODUCING A STUDENT NEWSPAPER  2 Units
Prerequisite: Eligibility for ENGL 1A.
May be taken 6 times for credit.
2 hours lecture, 1 hour laboratory.
Conception, writing, editing, and publication of articles for a college student newspaper; learning of key concepts regarding journalism procedures, laws, and ethics; performance of auxiliary duties such as advertising, sales, and distribution.

ENGL 190  DIRECTED STUDY  .5 Unit
ENGL 190X  1 Unit
Non-degree applicable credit course.
Advisory: Pass/No Pass.
Any combination of ENGL 190 & 190X may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit.
1 hour lecture-laboratory for each .5 unit of credit.
For students who desire or require additional help in attaining comprehension and competency in learning skills; non-transferable course.

ENGL 205  ALTERNATE CREDIT READING SKILLS  5 Units
Non-degree applicable credit course.
Corequisite: ENGL 100 or 108.
May be taken 2 times for credit.
5 hours lecture.
Designed to allow students enrolled in ENGL 100 or 108 to receive credit for mastery of some but not all of the outcomes of ENGL 100 (or the reading portion of 108). Students are required to attend the ENGL 100 or 108 course, turn in all work, and participate in the other tasks of the class. Does not meet the Foothill College reading requirement.

ENGL 215  ALTERNATE CREDIT WRITING SKILLS  5 Units
Non-degree applicable credit course.
Corequisite: ENGL 110 or 108.
May be taken 2 times for credit.
5 hours lecture.
Designed to allow students enrolled in ENGL 110 or 108 to receive credit for mastery of some but not all of the outcomes of ENGL 110 (or the writing portion of ENGL 108). Students are required to attend the ENGL 110 or 108 course, turn in all work, and participate in the other tasks of the class. Does not meet the Foothill College writing requirement.
ESLL 25  COMPOSITION & READING  5 Units
Formerly: ESL 257
Prerequisite: Appropriate placement test score or a grade of “C” or better in ESLL 236 and ESLL 237; designed for students whose native language is not English.
Advisory: Completion of, or concurrent enrollment in ESLL 235 strongly recommended; concurrent enrollment in ESLL 246 and/or 247 strongly recommended; not open to students with credit in ESLL 257.
5 hours lecture.
Development of critical reading skills using selected readings which present a range of cultural experiences and perspectives. Practice in writing expository essays based on personal experience, observations, and class readings with a review of acceptable English sentence structure. Open laboratory for feedback on essays and individualized assistance with specific writing problems. Does not fulfill the composition requirements for the A.A. degree. [Transferability: UC/CSU]

ESLL 26  ADVANCED COMPOSITION & READING  5 Units
Formerly: ESL 26
Prerequisite: Appropriate placement test score or a grade of “C” or better in ESLL 25; designed for students whose native language is not English.
Advisory: Concurrent enrollment in ESLL 246 and/or 247 strongly recommended; not open to students with credit in ESLL 26.
Corequisite: Completion of, or concurrent enrollment in ESLL 235.
5 hours lecture.
The techniques and practice of expository and argumentative writing based on critical reading and thinking. Reading focused on essays and articles, chosen to represent a broad spectrum of opinions and ideas, writing styles, and cultural experiences and perspectives. Research paper synthesizing information from a range of current sources to form a persuasive argument. Open laboratory for feedback on essays and individualized assistance with specific writing problems. Fulfills the composition requirement for the A.A. degree. [Transferability: UC/CSU]

ESLL 200A  FOUNDATIONS IN ENGLISH AS A SECOND LANGUAGE I  8 Units
Formerly: ESL 200A
Non-degree applicable basic skills course.
Advisory: Not open to students with credit in ESL 200A.
8 hours lecture.
This is Part One of an integrated skills, foundation course for learners of English as an additional language. The focus of this course is on developing a basic level of grammar and vocabulary through listening, speaking, reading and writing so that learners can communicate with other English speakers in and outside of the classroom.

ESLL 200B  FOUNDATIONS IN ENGLISH AS A SECOND LANGUAGE II  8 Units
Formerly: ESL 200B
Non-degree applicable basic skills course.
Prerequisite: ESLLL 200A.
Advisory: Not open to students with credit in ESL 200B.
8 hours lecture.
This is Part Two of an integrated skills, foundation course for learners of English as an additional language. The focus of this course is on continuing to develop a basic level of grammar and vocabulary through listening, speaking, reading and writing so that learners can communicate with other English speakers in and outside of the classroom.

ESLL 210A  FOUNDATIONS IN ENGLISH AS A SECOND LANGUAGE III  8 Units
Formerly: ESL 210A
Non-degree applicable basic skills course.
Prerequisite: Appropriate placement test score or a grade of “C” or better in ESLL 200B.
Advisory: Not open to students with credit in ESL 210A.
8 hours lecture.
This class is the first half of Level Two of an integrated skills, foundation course for learners of English as an additional language who already have a basic level of speaking, listening, reading and writing. The focus of this course is to help learners advance in their development of grammar and vocabulary through listening, speaking, reading and writing.

ESLL 210B  FOUNDATIONS IN ENGLISH AS A SECOND LANGUAGE IV  8 Units
Formerly: ESL 210B
Prerequisite: ESL 210A.
Advisory: Not open to students with credit in ESL 210B.
8 hours lecture.
This is the second half of Level Two of an integrated skills, foundation course for learners of English as an additional language who already have a basic level of speaking, listening, reading and writing. The focus of this course is to help learners advance in their development of grammar and vocabulary through listening, speaking, reading and writing.

ESLL 225  DEVELOPING LISTENING/ SPEAKING SKILLS  5 Units
Formerly: ESL 155
Non-degree applicable credit course.
Prerequisite: Appropriate placement score or successful completion of ESLL 210B.
Advisory: Not open to students with credit in ESL 155.
5 hours lecture.
Development of ability to listen to everyday English and to participate in everyday conversations. Introduction to academic listening and classroom interactional skills, discussion skills and the language of group work dynamics. Pronunciation work to develop clear speech and comprehension of naturally spoken English. Reading and writing tasks related to listening and speaking.

ESLL 226  HIGH-INTERMEDIATE GRAMMAR  5 Units
Formerly: ESL 156
Non-degree applicable credit course.
Prerequisite: Appropriate placement test score or successful completion of ESLL 210A.
Advisory: Concurrent enrollment in ESLL 227; not open to students with credit in ESL 156.
5 hours lecture.
Continuation of ESLL 210B. A high-intermediate English course for non-native speakers focusing on comprehension, communication, and grammatical accuracy. Emphasis on understanding and communication of new information, conjectures, and logical relationships in spoken and written contexts. Computer or workbook activities to reinforce knowledge of structures.

ESLL 227  HIGH-INTERMEDIATE READING SKILLS  5 Units
Formerly: ESL 157
Non-degree applicable credit course.
Prerequisite: Appropriate placement test score or successful completion of ESLL 210B.
Advisory: Concurrent enrollment in ESLL 226; designed for students whose native language is not English; not open to students with credit in ESL 157.
5 hours lecture.
Continuation of ESLL 210B. An upper intermediate-level reading course focusing on higher level comprehension skills and strategies for dealing with pre-college-level reading. Computer and/or workbook activities to reinforce knowledge of material and skills.
ESLL 228  DEVELOPING LANGUAGE SKILLS FOR INTERNATIONAL STUDENTS 10 Units

Formerly: ESL 158
Non-degree applicable basic skills course.
Prerequisite: TOEFL score of 475 to 499; restricted to international students whose native language is not English.
Advisory: Not open to students with credit in ESL 158.
10 hours lecture.
A high intermediate/low-advanced course in grammar, writing, reading, and speaking for international students who are about to enter a college academic program. Designed to improve students writing language skills.

ESLL 235  LISTENING/SPEAKING FOR ACADEMIC PURPOSES 5 Units

Formerly: ESL 165
Non-degree applicable credit course.
Prerequisite: Appropriate placement test score or successful completion of ESLL 225.
Advisory: Successful completion of ESLL 226 and 227 strongly recommended; designed for students whose native language is not English; not open to students with credit in ESL 165.
5 hours lecture.
A listening/speaking course focusing on preparing students for listening to authentic lectures and classroom discussions. Practice with classroom interactional, discussion and presentation skills. Pronunciation work to develop intelligible speech and ability to comprehend naturally spoken English in academic contexts. Level appropriate reading and writing tasks in connection with these activities.

ESLL 236  ADVANCED GRAMMAR 5 Units

Formerly: ESL 166
Non-degree applicable credit course.
Prerequisite: Appropriate placement test score or successful completion of ESLL 226 and 227, or ESL 154.
Advisory: Concurrent enrollment in ESLL 237; designed for students whose native language is not English; not open to students with credit in ESL 166.
5 hours lecture.
Continuation of ESLL 225. An advanced English course for non-native speakers focusing on comprehension, communication and grammatical accuracy. Emphasis on understanding and communication of abstract ideas as well as concrete new information in spoken and written contexts. Computer or workbook activities to reinforce knowledge of structures.

ESLL 237  BASIC COMPOSITION SKILLS 5 Units

Formerly: ESL 167
Non-degree applicable credit course.
Prerequisite: Appropriate placement test score or a grade of “C” or better in ESLL 226 and 227 or ESL 154.
Advisory: Designed for students whose native language is not English; not open to students with credit in ESL 167.
Corequisite: Concurrent enrollment in or a grade of “C” or better in ESLL 236.
5 hours lecture.
A basic course for non-native speakers focusing on techniques of college writing, emphasizing clear prose. Lecture, discussion, and individualized instruction. Emphasis on the production of short compositions containing well-developed paragraphs and a variety of standard English sentences. Open laboratory for feedback on essays and individualized assistance with specific writing problems. Does not meet the graduation requirement in composition.

ESLL 246  APPLIED GRAMMAR & EDITING SKILLS 3 Units

Formerly: ESL 176
Non-degree applicable credit course.
Prerequisite: Completion of ESLL 236 or an appropriate score on the ESL placement test.
Corequisites: ESLL 25, 26, ENGL 110, 1A or 1B.
May be taken 3 times for credit.
3 hours lecture.
Identify and edit for patterns of grammatical errors in original writing. Develop individual error profile. Address pertinent grammar issues through review of grammatical rules, various grammar exercises, and editing of sample papers and original work.

ESLL 247  ADVANCED VOCABULARY DEVELOPMENT FOR READING & WRITING 3 Units

Formerly: ESL 177
Non-degree applicable credit course.
Prerequisite: Appropriate placement test score or successful completion of ESLL 236 and 237.
Advisory: Designed for students whose native language is not English.
May be taken 3 times for credit.
3 hours lecture.
Expansion of academic vocabulary to meet the specific vocabulary needs for students in an academic setting. Multiple exposures to target words in meaningful contexts and rich information about each word. May be repeated one time as course content changes.

ESLL 248  ADVANCED GRAMMAR REVIEW 3 Units

Formerly: ESL 186
Non-degree applicable credit course.
Prerequisite: ESL 236 or an appropriate score on the ESL Placement Test.
May be taken 3 times for credit.
3 hours lecture.
This course is designed to allow students enrolled in ESLL 236 to review and practice the grammar concepts covered in ESLL 226 and 227. It is recommended for students who need additional practice in grammar before taking college-level composition courses.

ESLL 261A  ALTERNATE CREDIT: FOUNDATIONS IN ENGLISH AS A SECOND LANGUAGE I 8 Units

Formerly: ESL 261A
Non-degree applicable credit course.
May be taken 2 times for credit.
8 hours lecture.
This course is designed to allow students enrolled in ESL 200A to receive credit for mastery of some but not all of the outcomes of ESL 200A. Students are required to attend ESL 200A, turn in all work, and participate in the other tasks of the class.

ESLL 262A  ALTERNATE CREDIT: FOUNDATIONS IN ENGLISH AS A SECOND LANGUAGE III 8 Units

Formerly: ESL 262A
Non-degree applicable credit course.
May be taken 2 times for credit.
8 hours lecture.
This course is designed to allow students enrolled in ESL 210A to receive credit for mastery of some but not all of the outcomes of ESL 210A. Students are required to attend ESL 210A, turn in all work, and participate in the other tasks of the class.
ESLL 265 ALTERNATIVE CREDIT: DEVELOPING 5 Units
LISTENING/SPEAKING SKILLS
Formerly: ESL 255
Non-degree applicable basic skills course.
Advisory: Pass/No Pass.
May be taken 2 times for credit.
5 hours lecture.
Course is designed to allow students enrolled in ESLL 225 to receive credit for mastery of some but not all of the outcomes of ESLL 225. Students are required to attend the ESLL 225 course, turn in all work, and participate in the other tasks of the class.

ESLL 266 ALTERNATE CREDIT: HIGH- 5 Units
INTERMEDIATE GRAMMAR
Formerly: ESL 256
Non-degree applicable basic skills course.
Advisory: Pass/No Pass.
May be taken 2 times for credit.
5 hours lecture.
Course is designed to allow students enrolled in ESLL 226 to receive credit for mastery of some but not all of the outcomes of ESLL 226. Students are required to attend the ESLL 226 course, turn in all work, and participate in the other tasks of the class.

ESLL 267 ALTERNATE CREDIT: HIGH- 5 Units
INTERMEDIATE READING SKILLS
Formerly: ESL 257
Non-degree applicable basic skills course.
Advisory: Pass/No Pass.
May be taken 2 times for credit.
5 hours lecture.
Course is designed to allow students enrolled in ESLL 227 to receive credit for mastery of some but not all of the outcomes of ESLL 227. Students are required to attend the ESLL 227 course, turn in all work, and participate in the other tasks of the class. Library and lab work for extensive reading and vocabulary development.

ESLL 275 ALTERNATIVE CREDIT: 5 Units
LISTENING/SPEAKING FOR ACADEMIC PURPOSES
Formerly: ESL 265
Non-degree applicable basic skills course.
Advisory: Pass/No Pass.
May be taken 2 times for credit.
5 hours lecture.
Course is designed to allow students enrolled in ESLL 235 to receive credit for mastery of some but not all of the outcomes of ESLL 235. Students are required to attend the ESLL 235 course, turn in all work, and participate in the other tasks of the class.

ESLL 276 ALTERNATIVE CREDIT: 5 Units
ADVANCED GRAMMAR
Formerly: ESL 266
Non-degree applicable basic skills course.
Advisory: Pass/No Pass.
May be taken 2 times for credit.
5 hours lecture.
Course is designed to allow students enrolled in ESLL 236 to receive credit for mastery of some but not all of the outcomes of ESLL 236. Students are required to attend the ESLL 236 course, turn in all work, and participate in the other tasks of the class.

ESLL 277 ALTERNATIVE CREDIT: BASIC 5 Units
COMPOSITION SKILLS
Formerly: ESL 267
Non-degree applicable basic skills course.
Advisory: Pass/No Pass.
May be taken 2 times for credit.
5 hours lecture.
Course is designed to allow students enrolled in ESLL 237 to receive credit for mastery of some but not all of the outcomes of ESLL 237. Students are required to attend the ESLL 237 course, turn in all work, and participate in the other tasks of the class. Open laboratory for feedback on essays and individualized assistance with specific writing problems.

ESLL 286 ALTERNATIVE CREDIT: APPLIED 3 Units
GRAMMAR & EDITING SKILLS
Formerly: ESL 276
Non-degree applicable basic skills course.
Advisory: Pass/No Pass.
May be taken 2 times for credit.
3 hours lecture.
Course is designed to allow students enrolled in ESLL 246 to receive credit for mastery of some but not all of the outcomes of ESLL 246. Students are required to attend the ESLL 246 course, turn in all work, and participate in the other tasks of the class.

ESLL 287 ALTERNATE CREDIT: ADVANCED 3 Units
VOCABULARY DEVELOPMENT FOR READING/Writing
Formerly: ESL 277
Non-degree applicable basic skills course.
Advisory: Pass/No Pass.
May be taken 2 times for credit.
3 hours lecture.
Course is designed to allow students enrolled in ESLL 247 to receive credit for mastery of some but not all of the outcomes of ESLL 247. Students are required to attend the ESLL 247 course, turn in all work, and participate in the other tasks of the class.

ESLL 288 ALTERNATE CREDIT: ADVANCED 3 Units
GRAMMAR REVIEW
Formerly: ESL 286
Non-degree applicable basic skills course.
Prerequisite: ESLL 236 or an appropriate score on the ESL Placement Test.
Advisory: Pass/No Pass.
May be taken 2 times for credit.
3 hours lecture.
Course is designed to allow students enrolled in ESLL 248 to receive credit for mastery of some but not all of the outcomes of ESLL 248. Students are required to attend the ESLL 248 course, turn in all work, and participate in the other tasks of the class.

ESLL 295 ALTERNATE CREDIT: COMPOSITION 5 Units & READING
Formerly: ESL 225
Non-degree applicable basic skills course.
Advisory: Pass/No Pass.
May be taken 2 times for credit.
5 hours lecture.
Course is designed to allow students enrolled in ESLL 25 to receive credit for mastery of some but not all of the outcomes of ESLL 25. Students are required to attend the ESLL 25 course, turn in all work, and participate in the other tasks of the class. Open laboratory for feedback on essays and individualized assistance with specific writing problems. Does not meet the Foothill College composition requirements for the A.A. degree.

ESLL 296 ALTERNATE CREDIT: ADVANCED 5 Units
COMPOSITION & READING
Formerly: ESL 226
Non-degree applicable basic skills course.
Advisory: Pass/No Pass.
May be taken 2 times for credit.
5 hours lecture.
Course is designed to allow students enrolled in ESLL 26 to receive credit for mastery of some but not all of the outcomes of ESLL 26. Students are required to attend the ESLL 26 course, turn in all work, and participate in the other tasks of the class. Open laboratory for feedback on essays and individualized assistance with specific writing problems.

All courses on this page are Title 5 degree applicable credit courses unless otherwise noted.
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HORT 10 ENVIRONMENTAL HORTICULTURE & THE URBAN LANDSCAPE
4 hours lecture, 3 hours laboratory.
Environmental horticulture encompasses the planning, design, construction, and management of the urban landscape. Relevant topics include ecosystem restoration and management, landscape ecology, sustainable landscape management, sustainable use of natural resources, urban horticulture, and urban landscape design. [Foothill GE: Natural Sciences; Transferability: UC/CSU]

HORT 50A ORIENTATION TO ENVIRONMENTAL HORTICULTURE
3.5 hours lecture, 1.5 hours laboratory.
Survey of the many facets and component sciences of environmental horticulture. Exploration of the multitude of career options available in the green industry. An introduction to the vocabulary of the environmental sciences including the terminology used in the identification of plants. Foundations of plant science such as plant structure, plant growth, and the environmental needs of plants. [Transferability: UC/CSU]

HORT 51A PLANT MATERIALS I
3 Units
Advisory: Completion of, or concurrent enrollment in HORT 50A strongly recommended.
2 hours lecture, 3 hours laboratory.
Identification, taxonomy, habits of growth, cultural and environmental requirements of woody plants grown in California. Emphasis on the use and maintenance of evergreen and deciduous shrubs in the landscape. Plants are observed in lab, on campus, and at off-site locations. [Transferability: UC/CSU]

HORT 51B PLANT MATERIALS II
3 Units
Advisory: Completion of, or concurrent enrollment in HORT 50A strongly recommended.
2 hours lecture, 3 hours laboratory.
Identification, taxonomy, habits of growth, cultural and environmental requirements of woody plants grown in California. Emphasis on the use and maintenance of evergreen and deciduous shrubs in the landscape. Plants are observed in lab, on campus, and at off-site locations. [Transferability: UC/CSU]

HORT 51C PLANT MATERIALS: ANNUALS
2 Units
Advisory: Completion of, or concurrent enrollment in HORT 50A strongly recommended.
1 hour lecture, 3 hours laboratory.
Identification, taxonomy, habits of growth, cultural and environmental requirements of herbaceous plants grown in California. Emphasis on the use and maintenance of herbaceous annual plants with significant features such as flower and foliage displays. Plants are observed in lab, on campus, and at off-site locations. [Transferability: UC/CSU]

HORT 51D PLANT MATERIALS: CALIFORNIA NATIVE PLANTS
2 Units
Advisory: Completion of, or concurrent enrollment in HORT 50A strongly recommended.
1 hour lecture, 3 hours laboratory.
Identification, taxonomy, habits of growth, cultural and environmental requirements of plants native to California landscapes. Emphasis on a wide variety of native species including trees, shrubs, ground covers, and herbaceous plants. Plants are observed in lab, on campus, and at off-site locations. [Transferability: CSU]

HORT 51E PLANT MATERIALS: GROUND COVERS & VINES
2 Units
Advisory: Completion of, or concurrent enrollment in HORT 50A strongly recommended.
1 hour lecture, 3 hours laboratory.
Identification, taxonomy, habits of growth, cultural and environmental requirements of woody and herbaceous ground covers and vines grown in California. Emphasis on the use and maintenance of evergreen and deciduous plants used as ground covers, vines, or espaliers in ornamental landscapes. Plants are observed in lab, on campus, and at off-site locations. [Transferability: CSU]

HORT 51F PLANT MATERIALS: BAMBOOS & PALMS
2 Units
Advisory: Completion of, or concurrent enrollment in HORT 50A strongly recommended.
1 hour lecture, 3 hours laboratory.
Identification, taxonomy, habits of growth, cultural and environmental requirements of bamboos and palms grown in California. Emphasis on the use and maintenance of these two categories of monocots, each with markedly different forms. Plants are observed in lab, on campus, and at off-site locations. [Transferability: CSU]

HORT 51G PLANT MATERIALS: INTERIOR & TROPICAL PLANTS
2 Units
Advisory: Completion of, or concurrent enrollment in HORT 50A strongly recommended.
1 hour lecture, 3 hours laboratory.
Identification, taxonomy, habits of growth, cultural and environmental requirements of interior and tropical plants. Emphasis on the use and maintenance of interior and tropical plants grown in greenhouses or used in indoor residential or commercial settings. Plants are observed in lab, on campus, and at off-site locations. [Transferability: CSU]

HORT 51H PLANT MATERIALS: PERENNIALS & ANNUALS
2 Units
Advisory: Completion of, or concurrent enrollment in HORT 50A strongly recommended.
1 hour lecture, 3 hours laboratory.
Identification, taxonomy, habits of growth, cultural and environmental requirements of herbaceous plants grown in California. Emphasis on the use and maintenance of significant perennial and annual species with significant features such as flower and foliage displays. Plants are observed in lab, on campus, and at off-site locations. [Transferability: CSU]

HORT 51J PLANT MATERIALS: CACTI & SUCCULENTS
2 Units
Advisory: Completion of, or concurrent enrollment in HORT 50A strongly recommended.
1 hour lecture, 3 hours laboratory.
Identification, taxonomy, habits of growth, cultural and environmental requirements of plants grown in California. Emphasis on the use and maintenance of cacti and succulents with significant design features and landscape uses. Plants are observed in lab, on campus, and at off-site locations. [Transferability: CSU]

HORT 52A HORTICULTURAL PRACTICES: SOILS
3 Units
Advisory: Completion of, or concurrent enrollment in HORT 50A.
2 hours lecture, 3 hours laboratory.
Fundamentals of soil science including examination of soil formation, physical and chemical properties of soil, relationships between soil, water and plants, and biological factors of soil. Examination of soil samples and interpretation of soil reports and surveys. Basics of plant fertility requirements and soil related topics such as composting, environmental issues, and soils in construction. [Transferability: UC/CSU]

HORT 52B HORTICULTURAL PRACTICES: PLANT PROPAGATION
3 Units
Advisory: Completion of, or concurrent enrollment in HORT 50A strongly recommended.
2 hours lecture, 3 hours laboratory.
Principles of plant propagation with an emphasis on techniques that are used in the nursery and greenhouse industries. Seeds, cuttings, grafting techniques, and the separation and division of specialized structures. [Transferability: CSU]
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>HORT 52C</td>
<td>HORTICULTURE PRACTICES: PLANT INSTALLATION &amp; MAINTENANCE</td>
<td>3</td>
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<td>Advisory: HORT 50A strongly recommended.</td>
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<td></td>
<td>2 hours lecture, 3 hours laboratory.</td>
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<td></td>
<td>Horticultural principles and practices for management of plants and</td>
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<td></td>
<td>gardens. Proper selection and maintenance of trees, shrubs, and</td>
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<td>ground covers. Fine gardening techniques used by landscape gardeners.</td>
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<td></td>
<td>Transplanting and planting containerized and boxed plant material.</td>
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<td>Preparation of planting areas and post-planting care of landscape</td>
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<td></td>
<td>plants. Techniques for pruning of various species. Operation of</td>
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<td>equipment and tools used in landscaping.</td>
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<td>[Transferability: CSU]</td>
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<tr>
<td>HORT 52E</td>
<td>HORTICULTURAL PRACTICES: GREENHOUSE &amp; NURSERY MANAGEMENT</td>
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<td>Advisory: Completion of, or concurrent enrollment in HORT 50A</td>
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<td></td>
<td>strongly recommended. 2 hours lecture, 3 hours laboratory.</td>
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<tr>
<td></td>
<td>Commercial greenhouse and nursery management practices as related to</td>
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<td>the production and sale of plants in California. Emphasis on</td>
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<td></td>
<td>greenhouse and container nursery operations. Class will focus on</td>
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<td>organization, management, and production practices used in large and</td>
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<td>small-scale commercial plant production. Design of facilities and use</td>
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<td>of technology will be emphasized through use of on-campus facilities</td>
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<td>and observation of off-site operations.</td>
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<td></td>
<td>[Transferability: CSU]</td>
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<tr>
<td>HORT 52F</td>
<td>HORTICULTURAL PRACTICES: INTERIORSCAPING</td>
<td>3</td>
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<td>Advisory: Completion of, or concurrent enrollment in HORT 50A</td>
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<td></td>
<td>strongly recommended. 2 hours lecture, 3 hours laboratory.</td>
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<td></td>
<td>Design, installation, and maintenance practices utilized in interior</td>
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<td>landscapes. Includes the identification, selection, culture, and care</td>
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<td>of plants suitable for interior use and special events. Identification</td>
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<td>of approximately 50 tropical plants. Analysis of environmental factors</td>
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<td>which affect plant health, appearance, and longevity. Container and</td>
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<td>growing media selection. [Transferability: CSU]</td>
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<td>HORT 52G</td>
<td>HORTICULTURAL PRACTICES: TURFGRASS MANAGEMENT</td>
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<td></td>
<td>2 hours lecture, 3 hours laboratory.</td>
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<td></td>
<td>Turf identification and planting techniques. Turf maintenance and</td>
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<td>management practices for golf courses, athletic fields, parks, and</td>
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<td></td>
<td>areas surrounding commercial buildings and private residences.</td>
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<td></td>
<td>Examination of soils, irrigation, weeds, diseases and pests as they</td>
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<td></td>
<td>pertain to turfgrass. [Transferability: CSU]</td>
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<tr>
<td>HORT 52H</td>
<td>HORTICULTURAL PRACTICES: INTEGRATED PEST MANAGEMENT</td>
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<td>Advisory: Completion of, or concurrent enrollment in HORT 50A</td>
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<tr>
<td></td>
<td>strongly recommended. 2 hours lecture, 3 hours laboratory.</td>
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<td></td>
<td>Problems of and control solutions for diseases, insects, and weeds in</td>
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<td>landscapes and gardens. Ecologically based Integrated Pest Management</td>
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<td>(IPM) practices for handling plant pathogens, insect infestations,</td>
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<td>and unwanted vegetation. Emphasis on identification, life cycles, and</td>
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<td></td>
<td>symptoms of diseases, insects, and weeds. [Transferability: CSU]</td>
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<td>HORT 54A</td>
<td>LANDSCAPE CONSTRUCTION: GENERAL PRACTICES</td>
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<tr>
<td></td>
<td>3 hours lecture, 3 hours laboratory.</td>
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<td></td>
<td>General practices of construction as applied to landscape projects.</td>
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<td></td>
<td>Basic tools and equipment, building materials and hardware, and</td>
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<td></td>
<td>installation techniques utilized in landscape construction. Focus is</td>
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<td>on hardscape applications including paving, walls, decks, and fences.</td>
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<td></td>
<td>Review of safety practices, careers in landscape construction, and</td>
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<td></td>
<td>contractor licensing. [Transferability: CSU]</td>
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<tr>
<td>HORT 54B</td>
<td>LANDSCAPE CONSTRUCTION: TECHNICAL PRACTICES</td>
<td>3</td>
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<td></td>
<td>2.5 hours lecture, 1.5 hours laboratory.</td>
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<td></td>
<td>Technical aspects of landscape construction projects. Landscape</td>
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<td>surveying and grading techniques, surface and subsurface hydraulics,</td>
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<td>landscape drainage systems, erosion control and soil conservation, low</td>
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<td>voltage lighting, and building codes. Estimating landscape materials,</td>
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<td>construction costs, and preparation of project bids and contracts.</td>
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<td>[Transferability: CSU]</td>
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<td>HORT 54C</td>
<td>LANDSCAPE CONSTRUCTION: IRRIGATION PRACTICES</td>
<td>3</td>
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<td></td>
<td>2.5 hours lecture, 1.5 hours laboratory.</td>
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<td></td>
<td>Methods and materials used in the irrigation of ornamental landscapes.</td>
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<td>Selection of materials and operational theory of irrigation equipment.</td>
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<td>Installation techniques for sprinkler and drip irrigation systems.</td>
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<td>Water conservation features and maintenance of irrigation systems.</td>
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<td>[Transferability: CSU]</td>
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<td>HORT 54D</td>
<td>LANDSCAPE CONSTRUCTION: APPLIED PRACTICES</td>
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<td>Advisory: HORT 54A strongly recommended.</td>
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<td>May be taken 3 times for credit.</td>
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<td></td>
<td>1 hour lecture, 3 hours laboratory.</td>
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<td></td>
<td>The practical application of landscape construction practices to</td>
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<td>actual projects. Emphasis on field work which may include the design</td>
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<td>and construction of screens, fences, gates, benches, planter boxes,</td>
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<td>overheads, gazebos, decks, ponds or other specialized projects.</td>
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<td>Training on motorized equipment, such as tractors and backhoes used</td>
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<td></td>
<td>in landscape construction. [Transferability: CSU]</td>
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<td>HORT 55A</td>
<td>GREEN INDUSTRY MANAGEMENT: BUSINESS PRACTICES</td>
<td>3</td>
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<tr>
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<td>3 hours lecture. Introductory survey of green industry management and</td>
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<td>business practices. Geared to people in such fields as landscape</td>
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<td>construction, nursery management, and landscape design, this course</td>
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<td>focuses on helping individuals successfully organize, manage, and/or</td>
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<td>market their agency or small business. The class utilizes both a</td>
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<td>theoretical and hands-on approach to the application of common</td>
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<td>business principles. [Transferability: CSU]</td>
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<td>HORT 55B</td>
<td>GREEN INDUSTRY MANAGEMENT: EMPLOYEE PRACTICES</td>
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<td>3 hours lecture. Employee management practices including the</td>
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<td>recruitment, motivation, and development of new employees. Also</td>
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<td>covered are effective customer service techniques, workplace diversity,</td>
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<td>the use of employee manuals, identifying and training new and</td>
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<td>potential managers, development of leadership skills, scheduling, and</td>
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<td></td>
<td>the role of the supervisor. [Transferability: CSU]</td>
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<td>HORT 60A</td>
<td>LANDSCAPE DESIGN: GRAPHIC COMMUNICATION</td>
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<td></td>
<td>3 hours lecture, 3 hours laboratory.</td>
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<td></td>
<td>An introductory survey of the basic principles of design</td>
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<td>communication, landscape graphics, and design process. Graphic</td>
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<td>mediums and tools, graphic vocabulary, graphic skills, reprographic</td>
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<td>techniques, plan reading, and presentation skill development. The</td>
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<td>application of lines, symbols, and lettering to create typical</td>
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<td>landscape drawings. [Transferability: UC/CSU]</td>
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<td>HORT 60B</td>
<td>LANDSCAPE DESIGN: THEORY</td>
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<td>Advisory: HORT 60A and/or drafting skills strongly recommended.</td>
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<td>2 hours lecture, 3 hours laboratory.</td>
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<td>Principles of landscape design theory. Intermediate studies in and</td>
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<td>applications of graphic communication, creative problem solving,</td>
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<td>design theory, and presentation skills. Residential site analysis and</td>
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<td>landscape design case studies. [Transferability: CSU]</td>
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<td>HORT 60C</td>
<td>LANDSCAPE DESIGN: IRRIGATION</td>
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<td>Advisory: HORT 54C strongly recommended.</td>
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<td>2.5 hours lecture, 1.5 hours laboratory.</td>
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<td></td>
<td>Principles of irrigation design for ornamental landscapes. Includes</td>
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<td>history of irrigation, advanced site analysis, irrigation design</td>
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<td>theory, equipment selection and layout, controller scheduling,</td>
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<td>long-term maintenance, and water conservation issues. Process of</td>
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<td>producing irrigation plans, details, and specifications. [Transferability: CSU]</td>
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HORT 60D  LANDSCAPE DESIGN: PLANTING  3 Units
Advisory: HORT 60A & 60B, or equivalent strongly recommended; HORT 51A, 51B, & 51H strongly advised.
2 hours lecture, 3 hours laboratory.
The use of ornamental and native plant materials to express basic design principles in the landscape. Planting design theory as it applies to the aesthetic, cultural, ecological, and functional use of plant materials in the landscape. Graphics used for presenting planting designs. Special focus on the use of plants in garden designs. [Transferability: CSU]

HORT 60E  LANDSCAPE DESIGN: COMPUTER APPLICATIONS  3 Units
Advisory: HORT 60A and a basic understanding of the operation of computers is strongly recommended.
2 hours lecture, 3 hours laboratory.
Introduction to the use of computer applications in landscape design. Overview of software for computer aided design and drafting (CADD), landscape visualization, plant selection, irrigation design, estimating, and green industry management. Focus on development of basic command skills utilized in landscape design software applications. Vectorworks software is utilized in this course. [Transferability: CSU]

HORT 60F  LANDSCAPE DESIGN: PROCESS  3 Units
Advisory: HORT 60A & 60B.
2 hours lecture, 3 hours laboratory.
Principles of landscape design process. Application of residential site analysis, program development, and landscape design theory to one or more residential scale projects. Project planning and budgeting. Landscape designer, client, and green industry professional interactions. [Transferability: CSU]

HORT 60G  LANDSCAPE DESIGN: INTERMEDIATE  3 Units
Advisory: HORT 60A and 60E strongly advised; knowledge of computer operation strongly advised.
2 hours lecture, 3 hours laboratory.
Advanced use of Vectorworks as a landscape design and drafting tool. Topics covered include structuring of drawings using layers, improving drawing skills using tool commands such as walls, doors, stippling, and review of shortcuts used to improve drawing efficiency. Also covered will be customizing tool bars, expanding plant database, and importing/exporting/printing drawings. Introduction to three-dimensional drawing using Vectorworks and related programs. [Transferability: CSU]

HORT 80  ENVIRONMENTAL HORTICULTURE SKILLS  2 Units
May be taken 4 times for credit.
6 hours laboratory.
An extension of classroom instruction offering students the opportunity through a combination of practical field experience, independent research, student internship, and industry related educational opportunities to explore problems and required skills in the green industry. Introduction to the extensive number of career options available. [Transferability: CSU]

HORT 90A  CONTAINER PLANTINGS IN THE LANDSCAPE  1 Unit
May be taken 5 times for credit.
.75 hour lecture, .5 hour laboratory.
Utilization of container plantings in both interior environments and exterior landscapes. Design theory, selection of containers, plant selection, and planting methods. Soil preparation and irrigation techniques. [Transferability: CSU]

HORT 90C  GARDEN PONDS & WATER FEATURES  1 Unit
May be taken 5 times for credit.
.75 hour lecture, .5 hour laboratory.
Introduction to the aesthetics of garden water features and the techniques used in their design, construction, and maintenance. Use of fish, plants, and other natural systems in garden ponds and pools. [Transferability: CSU]

HORT 90E  HORTICULTURAL & LANDSCAPE PHOTOGRAPHY  1 Unit
May be taken 5 times for credit.
.75 hour lecture, .5 hour laboratory.
Introduction to basic photographic equipment and techniques utilized in photographing landscapes and horticulturally related elements. Emphasis on assisting green industry professionals in photographing ornamental plants, landscape construction or business-related projects, and landscape designs. [Transferability: CSU]

HORT 90F  LANDSCAPE DESIGN: BASIC PRINCIPLES  1 Unit
May be taken 5 times for credit.
.75 hour lecture, .5 hour laboratory.
An overview of the basic principles of landscape design. Presents basic graphic communication concepts. Also explores the concept of master planning residential landscapes, and designing with plant material and related landscape elements. [Transferability: CSU]

HORT 90G  LANDSCAPE DESIGN FORUM  1 Unit
May be taken 5 times for credit.
.75 hour lecture, .5 hour laboratory.
Basic theory, design, and installation techniques for lighting residential landscapes. The effective use of conventional and low-voltage lighting for improving landscape aesthetics and the functional use of outdoor spaces. [Transferability: CSU]

HORT 90H  LANDSCAPE LIGHTING  1 Unit
May be taken 5 times for credit.
.75 hour lecture, .5 hour laboratory.
Basic theory, design, and installation techniques for lighting residential landscapes. Principles and practices utilized in the design, implementation, and maintenance of sustainable landscapes and gardens. Reviews ecological principles of sustainability for efficient energy use in the environment. [Transferability: CSU]

HORT 90I  LANDSCAPE SUSTAINABILITY PRACTICES  1 Unit
May be taken 5 times for credit.
.75 hour lecture, .5 hour laboratory.
Principles and practices utilized in the design, implementation, and maintenance of sustainable landscapes and gardens. Reviews ecological principles of sustainability for efficient energy use in the environment. [Transferability: CSU]

HORT 90K  LANDSCAPING WITH EDIBLES  1 Unit
May be taken 5 times for credit.
.75 hour lecture, .5 hour laboratory.
The use of edible plants in residential landscapes. Practice and feasibility of integrating edible plants into landscape designs. Identification of ornamental plant materials which produce edible fruit, foliage, flowers or other edible parts. [Transferability: CSU]

HORT 90L  PLANT PROPAGATION: BASIC SKILLS  1 Unit
May be taken 5 times for credit.
.75 hour lecture, .5 hour laboratory.
Introduction to propagation of plants by sexual and asexual methods. Seeding, cutting, grafting, division of specialized structures, and micro-propagation discussed and demonstrated. Discussions include growing media, fertilizers, hormones, and other plant supplements. [Transferability: CSU]

HORT 90M  PLANT NUTRITION & FERTILIZATION  1 Unit
May be taken 5 times for credit.
.75 hour lecture, .5 hour laboratory.
Introduction to plant nutrient requirements and methods for providing proper plant nutrition. Topics include review of basic nutrient requirements, forms of nutrients used by plants, nutrient deficiency identification, methods for delivering nutrients to plants, manufacture of fertilizers, fertilizer formulations, fertilizer delivery methods, and organic nutrient sources. [Transferability: CSU]
HORT 90N PLANT MATERIALS: FALL COLOR 1 Unit
May be taken 5 times for credit.
.75 hour lecture, .5 hour laboratory.
Identification, taxonomy, habits of growth, cultural and environmental requirements of plants which exhibit noticeable fall color. Color characteristics includes stems, foliage, flowers, and fruit. Plants are observed in lab, on campus, and at off-site locations. [Transferability: CSU]

HORT 90P PRUNING: BASIC SKILLS 1 Unit
May be taken 5 times for credit.
.75 hour lecture, .5 hour laboratory.
Methods of pruning deciduous and evergreen plant materials. Emphasis on pruning common landscape plants, fruit trees, and roses. Selection of suitable pruning tools, techniques for pruning safely, and use and maintenance of tools and equipment. [Transferability: CSU]

HORT 90Q RESIDENTIAL IRRIGATION SYSTEMS 1 Unit
May be taken 5 times for credit.
.75 hour lecture, .5 hour laboratory.
Basic design and installation techniques for residential landscapes. Course takes a hands-on approach to understanding the materials and techniques used in installing both drip and spray irrigation systems. Examines methods for evaluating performance of existing irrigation systems. [Transferability: CSU]

HORT 90R SEASONAL FLORAL DESIGN 1 Unit
May be taken 5 times for credit.
.75 hour lecture, .5 hour laboratory.
Floral design geared to the preparation of seasonal and holiday floral arrangements using commercially grown fresh and dried materials and other ornamentation. Concentrates on seasonal-specific floral designs and emphasizes the techniques and mechanics used in retail florist shop design. [Transferability: CSU]

HORT 90S SUSTAINABLE INTEGRATED PEST MANAGEMENT (IMP) 1 Unit
May be taken 5 times for credit.
.75 hour lecture, .5 hour laboratory.
Advanced topics in sustainability build on core IPM practices. Class provides additional techniques for managing specific insects, diseases, and weeds using a multi-faceted approach to pest management. Theoretical and practical aspects of sustainability are presented within the framework of specific landscape situations. [Transferability: CSU]

HORT 90U LANDSCAPE DESIGN: PERSPECTIVE SKETCHING 1 Unit
May be taken 5 times for credit.
.75 hour lecture, .5 hour laboratory.
Basic perspective sketching for landscape design presentations. Setup and rendering of one-point and two-point perspectives, including location of horizon lines and vanishing points, height determination, positioning of objects, and rendering techniques for plants, people, structures, and hardscape. [Transferability: CSU]

HORT 90V SUSTAINABLE ORGANIC GARDENING 1 Unit
May be taken 5 times for credit.
.75 hour lecture, .5 hour laboratory.
Principles and practices utilized in the design, implementation, and maintenance of sustainable organic gardens. Sustainable gardening practices that produce successful, environmentally responsible produce and crops. [Transferability: CSU]

HORT 90X XERISCAPING: CREATING WATER-CONSERVING LANDSCAPES 1 Unit
May be taken 5 times for credit.
.75 hour lecture, .5 hour laboratory.
Xeriscaping is the process of creating water-conserving landscapes. Landscape designs which incorporate xeriscape principles strive to limit the need for water and strike a balance between softscape and hardscape elements. [Transferability: CSU]

HORT 90Y CACTI & SUCCULENTS 1 Unit
May be taken 5 times for credit.
.75 hour lecture, .5 hour laboratory.
Identification, taxonomy, habits of growth, cultural and environmental requirements of plants grown in California. Emphasis on the use and maintenance of cacti and succulents with significant design features and landscape uses. Plants are observed in lab, on campus, and at off-site locations. [Transferability: CSU]

HORT 90Z ORNAMENTAL GRASSES 1 Unit
May be taken 5 times for credit.
.75 hour lecture, .5 hour laboratory.
Identification, taxonomy, habits of growth, cultural and environmental requirements of ornamental grasses grown in California. Emphasis on the use and maintenance of these monocots. Plants are observed in lab, on campus, and at off-site locations. [Transferability: CSU]
GEOG 1 PHYSICAL GEOGRAPHY 5 Units
Advisory: Eligibility for ENGL 1A or ESLL 26; MATH 220.
4 hours lecture, 1 hour lecture-laboratory, 2 hours laboratory.
Study of the Earth's surface, including the earth's dimensions and systems; atmospheric processes; patterns of climate, vegetation and soils; and features, processes and interactions of land, water and various energy sources. Use of maps for interpretation. [Foothill GE: Natural Sciences, Social & Behavioral Sciences; Transferability: UC/CSU]

GEOG 2 HUMAN GEOGRAPHY 4 Units
Advisory: Eligibility for ENGL 1A or ESLL 26.
4 hours lecture.
The cultural geographic landscape. Study of the human population from origins to the present with an emphasis on the future. Examination of population densities, migrations and settlements; races, languages and religions; patterns of land use and major environmental perceptions and problems. Analysis of energy, mineral, and food resources and how cultures utilize them. [Foothill GE: Social & Behavioral Sciences; Transferability: UC/CSU]

GEOG 5 INTRODUCTION TO ECONOMIC GEOGRAPHY 4 Units
4 hours lecture.
Introduction to the geography of economic activity; the world wide distribution and characteristics of agriculture, forestry, fishing, mining, manufacturing, transportation, high technology and international trade. [Foothill GE: Social & Behavioral Sciences; Transferability: UC/CSU]

GEOG 9 CALIFORNIA GEOGRAPHY 4 Units
4 hours lecture.
Study of extreme regional variations within California. Factors contributing to landscape change. Examination of exploration, settlement, economic development, and urban-industrial-transportation patterns. Extensive use of maps, GIS, Internet and current events. [Foothill GE: Social & Behavioral Sciences; Transferability: UC/CSU]

GEOG 10 WORLD REGIONAL GEOGRAPHY 4 Units
4 hours lecture.
Survey of the world's major culture regions and major nations. Physical, cultural, economic features. Emphasis on historical influences on population growth, transportation networks, natural environment, potential and problems. Location, importance and impact of the foremost features of countries, states, major cities, rivers and landform regions. [Foothill GE: Social & Behavioral Sciences; Transferability: UC/CSU]

GEOG 12 INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS (GIS) 4 Units
3 hours lecture, 3 hours laboratory.

GEOG 34H HONORS INSTITUTE SEMINAR IN GEOGRAPHY 1 Unit
Formerly: GEOG 34
Prerequisite: Honors Institute participant.
Advisory: Not open to students with credit in GEOG 34.
1 hour lecture.
A seminar in directed readings, discussions and projects in geography. Specific topics to be determined by the instructor. [Transferability: CSU; UC credit may be granted after transfer and upon portfolio review.]

GEOG 35 DEPARTMENT HONORS PROJECTS IN GEOGRAPHY 1 Unit
May be taken 6 times for credit.
1 hour lecture.
Seminar in readings, research, critical techniques and practice. Specific topics vary. [Transferability: CSU]

GEOG 36 SPECIAL PROJECTS IN GEOGRAPHY 1 Unit
GEOG 36X 2 Units
GEOG 36Y 3 Units
GEOG 36Z 4 Units
Any combination of GEOG 36–36Z may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit.
1 hour lecture for each unit of credit.
Advanced readings, research, and/or project in geography. Specific topics determined in consultation with instructor. [Transferability: CSU]

GEOG 52 ADVANCED GEOGRAPHIC INFORMATION SYSTEMS (GIS) 4 Units
3 hours lecture, 3 hours laboratory.

GEOG 54A SEMINAR IN SPECIALIZED APPLICATIONS OF GEOGRAPHIC INFORMATION SYSTEMS I 2 Units
May be taken 2 times for credit.
2 hours lecture.
Seminar on the diverse applications of Geographic Information Systems (GIS). Weekly presentations by guest speakers. [Transferability: CSU]

GEOG 54B SEMINAR IN SPECIALIZED APPLICATIONS OF GEOGRAPHIC INFORMATION SYSTEMS II 2 Units
Formerly: GEOG 54
Corequisite: Completion of or concurrent enrollment in GEOG 54A.
6 hours laboratory.
Students undertake an original GIS project of their choosing under guidance of the instructor. [Transferability: CSU]

GEOG 58 REMOTE SENSING & DIGITAL IMAGE PROCESSING 3 Units
2 hours lecture, 3 hours laboratory.
Physical basis of remote sensing. Aerial photography and high resolution multi-band imaging. Satellite multi-band optical remote sensing. Other forms of remote sensing (RADAR, SAR, LIDAR). Applications of remote sensing. [Transferability: CSU]

GEOG 59 CARTOGRAPHY, MAP PRESENTATION & DESIGN 2 Units
1 hour lecture, 3 hours laboratory.
Map projections, geodes, coordinate systems. Map composition. Selection of colors and symbols. [Transferability: CSU]
GEOG 73  DYNAMIC & INTERACTIVE MAPPING  4.5 Units
Prerequisite: GEOG 12 and 52 or equivalent.
2.5 hours lecture, 6 hours laboratory.
Design and implementation of dynamic presentations for visualizing geographic information. Lab projects creating animated and multimedia presentations, and designing user-interfaces for interactive mapping systems. [Transferability: CSU]

GEOG 78  GEOGRAPHIC INFORMATION SCIENCE PROJECTS  4.5 Units
Prerequisite: GEOG 73.
2.5 hours lecture, 6 hours laboratory.
Implementation of geographic information science projects in a group environment for targeted applications. Design and application of interactive mapping systems and dynamic animation in a GIS environment. Example project areas include (but are not limited to) Web mapping and Web GIS; advanced spatial databases; integrating remote sensing and geographic information systems; and geographic Web services. Projects may involve client organizations. [Transferability: CSU]

GEOG 90A  INTRODUCTION TO GIS FOR K–12  1 Unit
TEACHERS I: FUNDAMENTALS OF GEOGRAPHIC INFORMATION SYSTEMS SCIENCE
1 hour lecture.
Study of Geographic Information Systems (GIS) science and its applications to spatial data management. Assessment of vector and raster systems, scale, resolution, map projection and coordinate systems. Applications and uses of GIS and data visualization in the classroom and in and out of the classroom. Integration of technology intensive curriculum with the traditional classroom model. [Transferability: CSU]

GEOG 90B  INTRODUCTION TO GIS FOR K–12  1 Unit
TEACHERS II: UTILIZING SPATIAL DATA & DATA ANALYSIS IN THE CLASSROOM
1 hour lecture.

GEOG 90C  INTRODUCTION TO GIS FOR K–12 TEACHERS III: DESIGNING & IMPLEMENTING A GIS  1 Unit
1 hour lecture.
Study of Geographic Information Systems (GIS) science and its applications to spatial data management. Designing and creating an original GIS. Database design, fundamentals of data storage, scanning and heads-up digitizing. Finding and accessing free data sources on the Internet. [Transferability: CSU]

GEOG 100A  INTRODUCTION TO ARC VIEW GIS  .5 Unit
.5 hour lecture.
Introduction to ESRI’s ArcView GIS software. Fundamental GIS concepts. Hands-on experience with basic elements of project file set-up, managing projects and conducting basic queries.

GEOG 100B  INTRODUCTION TO GEO MEDIA & GEO MEDIA PRO  .5 Unit
.5 hour lecture
Introduction to Intergraph’s GeoMedia and GeoMedia Pro GIS software. Fundamental GIS concepts. Hands-on experience working with GeoWorkspaces, Data Warehouses, and conducting basic queries.

GEOG 101  A PREFACE TO GIS: AN INTRODUCTION TO COMPUTER-BASED MAPPING & GIS  1 Unit
May be taken 2 times for credit.
1 hour lecture.
Non-technical introduction to Geographic Information Systems (GIS) with an emphasis on applications and career opportunities. Includes the application of GIS in a range of disciplines, GIS software and data available, how Global Positioning Systems (GPS) integrate with GIS, and career opportunities with GIS. Students will be introduced to a variety of free and low cost software and provided with practical exercises.
GID 38 PRINTMAKING I 4 Units
Advisory: ART 4A and 5A; not open to students with credit in GRDS 69.
May be taken 3 times for credit.
2 hours lecture, 2 hours lecture-laboratory, 3 hours laboratory.
Introduction to the printmaking processes of relief, intaglio, screenprinting and monoprinting. Theory and practice making limited-edition and one-of-a-kind fine art prints. [Transferability: UC/CSU]

GID 39 PRINTMAKING II 4 Units
Prerequisite: GID 38.
May be taken 3 times for credit.
2 hours lecture, 2 hours lecture-laboratory, 3 hours laboratory.
Continuation of Printmaking I. Multi-color printing and photographic processes for relief, intaglio, screenprinting and paper plate lithography. Theory and practice making limited-edition and one-of-a-kind fine art prints. [Transferability: UC/CSU]

GID 40 DIGITAL PRINTMAKING 4 Units
Advisory: ART 56 or GID 74; not open to students with credit in GRDS 71.
May be taken 3 times for credit.
6 hours lecture-laboratory.
An introduction to digital printmaking, including embossing, monoprinting, chine colle, drypoint, softground, line etching, handcoloring, printing and the editioning of plates. [Transferability: UC/CSU]

GID 41 BEGINNING ETCHING 3 Units
Advisory: Not open to students with credit in ART 37A or GRDS 37A.
6 hours lecture-laboratory.
Beginning techniques in printmaking, including embossing, monoprinting, chine colle, drypoint, softground, line etching, handcoloring, printing and the editioning of plates. [Transferability: UC/CSU]

GID 42 BEGINNING RELIEF PRINTMAKING 3 Units
Advisory: ART 4A and 5A.
May be taken 6 times for credit.
6 hours lecture-laboratory.
An introduction to relief printing processes, exploring the basic techniques of embossing, linoleum block, wood block and collagraph printing. [Transferability: UC/CSU]

GID 44 BEGINNING RELIEF PRINTMAKING 3 Units
Advisory: Not open to students with credit in ART 37A or GRDS 37A.
6 hours lecture-laboratory.
An introduction to relief printing processes, exploring the basic techniques for making cut stencil designs and drawn stencil images. [Transferability: UC/CSU]

GID 46 BEGINNING SCREENPRINTING 3 Units
Advisory: ART 4A or 5A; not open to students with credit in ART 39A or GRDS 39A.
6 hours lecture-laboratory.
An introduction to screen printing processes, exploring the basic techniques for making cut stencil designs and drawn stencil images. [Transferability: UC/CSU]

GID 48 MONOPRINTING 3 Units
Advisory: Not open to students with credit in ART 49.
May be taken 3 times for credit.
6 hours lecture-laboratory.
Experience in printmaking methods that create one-of-a-kind fine art prints. Emphasis on artistic growth of imagery while developing technical skills with tools, media and techniques. [Transferability: UC/CSU]

GID 50 GRAPHIC DESIGN STUDIO I 4 Units
Advisory: Not open to students with credit in GRDS 53.
2 hours lecture, 2 hours lecture-laboratory, 3 hours laboratory.
Introduction to graphic design and visual communication. Projects include composition, typography, image creation and logo design. Creative ideas are explored in sketches and rough layouts. Students learn fundamental software skills using Adobe Illustrator and Photoshop to complete the graphic design activities in this course. [Transferability: UC/CSU]

GID 51 GRAPHIC DESIGN STUDIO II 4 Units
Prerequisite: GID 50.
2 hours lecture, 2 hours lecture-laboratory, 3 hours laboratory.
Continuation of GID 50. Students engage in problem solving with real-world graphic design projects. Focus on creative solutions that effectively use type, image, and layout. Projects include brochure, advertisement, interface, and package design. Creative ideas are explored in sketches, rough layouts, and finished comps. Students learn software skills using Adobe InDesign, Illustrator, and Photoshop to complete the graphic design activities in this course. [Transferability: UC/CSU]
GID 52  GRAPHIC DESIGN STUDIO III  4 Units
Prerequisite: GID 51.
2 hours lecture, 2 hours lecture-laboratory, 3 hours laboratory.
Continuation of GID 51. Students design and produce a real-world graphic design campaign. Focus on creative solutions that effectively use type, image, and layout. Projects include branding, identity, newsletter, web site, and package design. Creative ideas are explored in sketches, rough layouts, comps, and final presentations. Students learn software skills using Adobe Acrobat, InDesign, Illustrator, Photoshop, and Macromedia Dreamweaver to complete the graphic design activities in this course. [Transferability: UC/CSU]

GID 54  TYPOGRAPHY  4 Units
Advisory: GID 50 and 74 or proficiency using InDesign/Quark software recommended; not open to students with credit in GRDS 62.
2 hours lecture, 2 hours lecture-laboratory, 3 hours laboratory.
Exploration and experimentation with letter forms and page layout for expressive communication. Fundamental typographic principles, font recognition, and analysis of both historical and post modern design theory. Emphasis on content, form, and technique for effective use of typography in ads, posters, newsletters and other visual communications. [Transferability: UC/CSU]

GID 56  WEB SITE DESIGN  4 Units
Advisory: GID 50; proficiency using Photoshop or Illustrator software; not open to students with credit in GID 74 or 96.
2 hours lecture, 2 hours lecture-laboratory, 3 hours laboratory.
Basic instruction using the computer for web site and interface design. Emphasis on interactive media and creative problem solving. [Transferability: UC/CSU]

GID 60  CAREERS IN THE VISUAL ARTS  2 Units
Advisory: Not open to students with credit in GRDS 50 or VART 50.
2 hours lecture.
Exploring the field of visual arts including commercial arts, graphic design, photography, video arts, web site design, and illustration. Survey of career paths including art studios, company art departments, advertising agencies, freelance, and other job opportunities for creative services professionals. [Transferability: CSU]

GID 61  PORTFOLIO  4 Units
Formerly: GRDS 77
May be taken 2 times for credit.
2 hours lecture, 2 hours lecture-laboratory, 3 hours laboratory.
Preparation for displaying work samples when seeking employment. Planning ahead for the individual student professional ‘book’ with emphasis on selection, size, arrangement, color coordination, effectiveness and appropriateness. [Transferability: CSU]

GID 62  SERVICE LEARNING PROJECTS  4 Units
Formerly: GRDS 77
Advisory: Completion of entry level design and software courses.
May be taken 3 times for credit.
2 hours lecture, 2 hours lecture-laboratory, 3 hours laboratory.
Fulfillment of work-related assignments for on-campus and off-campus not-for-profit organizations. Faculty coordinator helps the student apply skills learned in graphic arts courses to community-based projects. Disciplines include graphic design, photography and studio art. [Transferability: CSU]

GID 64A  GRAPHIC & INTERACTIVE DESIGN EXPERIENTIAL INTERNSHIP  4 Units
May be taken 6 times for credit.
12 hours laboratory.
Off-campus supervised experiential education of graphic and interactive design students. Opportunity for practical application of knowledge, skills and abilities acquired in graphic and design as well as other related course work. Opportunity for additional hands-on training in all aspects graphic design. Exposure to varied protocols, methodologies and practices in a professional working environment. [Transferability: CSU]

GID 64B  GID EXPANDED EXPERIENTIAL INTERNSHIP  6 Units
May be taken 2 times for credit.
18 hours laboratory.
Off-campus supervised experiential education of graphic and interactive design students. Opportunity for practical application of knowledge, skills and abilities acquired in graphic and design as well as other related course work. Opportunity for additional hands-on training in all aspects graphic design. Exposure to varied protocols, methodologies and practices in a professional studio/work environment. [Transferability: CSU]

GID 70  GRAPHIC DESIGN DRAWING  4 Units
Formerly: GRDS 60
May be taken 2 times for credit.
2 hours lecture, 2 hours lecture-laboratory, 3 hours laboratory.
Developing drawing skills for communicating ideas. Learning to simplify complex realistic images to express design concepts rapidly and effectively. [Transferability: CSU]

GID 71  STORYBOARDING  4 Units
Advisory: GID 70; not open to students with credit in GRDS 76.
May be taken 4 times for credit.
2 hours lecture, 2 hours lecture-laboratory, 3 hours laboratory.
Fundamentals of creating storyboards and flowcharts for media projects. Emphasis on technique, concept development and design of storyboards. Exploration of storyboard applications for new media content. [Transferability: CSU]

GID 72  CARTOONING  4 Units
Advisory: Not open to students with credit in GRDS 73A.
May be taken 3 times for credit.
2 hours lecture, 2 hours lecture-laboratory, 3 hours laboratory.
Basic instruction using the computer for painting, drawing, image processing, photo composites and typography. Emphasis on image making and creative problem solving. [Transferability: UC/CSU]

GID 74  DIGITAL ART & GRAPHICS  4 Units
Advisory: Familiarity with computer operating systems, ART 4A or GID 70; ART 5A; PHOT 1; not open to students with credit in ART 56, GRDS 56 or PHOT 75.
May be taken 3 times for credit.
2 hours lecture, 2 hours lecture-laboratory, 3 hours laboratory.
Fundamentals of drawing cartoons for mass communication with a variety of styles and techniques. Emphasis on skills, concepts, humor, and design. Exploration of career opportunities. [Transferability: CSU]

GID 76  ILLUSTRATION & DIGITAL IMAGING  4 Units
Advisory: ART 4A or GID 70; GID 74 or familiarity with painting and drawing software; not open to students with credit in ART 50.
May be taken 3 times for credit.
2 hours lecture, 2 hours lecture-laboratory, 3 hours laboratory.
Fulfillment of work-related assignments for on-campus and off-campus not-for-profit organizations. Faculty coordinator helps the student apply skills learned in graphic arts courses to community-based projects. Disciplines include graphic design, photography and studio art. [Transferability: CSU]

GID 80  DIGITAL SOUND, VIDEO & ANIMATION  4 Units
Advisory: Not open to students with credit in ART 88, DRAM 86, GRDS 86, MUS 86 or VART 86.
2 hours lecture, 2 hours lecture-laboratory, 3 hours laboratory.
Basic instruction using the computer for emerging media technologies; digital sound, video editing, and animation. Emphasis on time based media and creative problem solving. [Transferability: UC/CSU]
GID 84 MOTION GRAPHICS 4 Units
Advisory: One of the following: ART 88, DRAM 86, GID 80, MUS 86, VART 86; not open to students with credit in GRDS 87 or VART 87.
2 hours lecture, 2 hours lecture-laboratory, 3 hours laboratory.
Basic instruction using the computer for motion graphic design and composite digital video production. Emphasis on time based media and its application to creative problem solving and communication solutions. [Transferability: UC/CSU]

GID 90 BOOK ARTS I 4 Units
Advisory: Not open to students with credit in GID 96.
May be taken 3 times for credit.
2 hours lecture, 2 hours lecture-laboratory, 3 hours laboratory.
Introduction to the skills and techniques of the book arts. Students will learn construction and mounting skills for books, boxes and portfolios. Traditional and non-traditional binding formats include stab, accordion, concertina and signature sewing. Emphasis on form building while exploring content and narrative. [Transferability: CSU]

GID 91 BOOK ARTS II 4 Units
Prerequisite: GID 90.
May be taken 3 times for credit.
2 hours lecture, 2 hours lecture-laboratory, 3 hours laboratory.
Continuation of Book Arts I. Studio experiences in making art that takes book form. Students will learn strategies for content development; design, layout and typography; and narrative structures, pacing and sequencing. Reproduction techniques include traditional and digital media including relief printing, stencil printing, transfer printing and commercial printing. Emphasis on content and narrative while advancing book construction skills. [Transferability: CSU]

GID 92 LETTERPRESS PRINTING 4 Units
Advisory: GID 50 and 74; not open to students with credit in GRDS 40.
May be taken 3 times for credit.
2 hours lecture, 2 hours lecture-laboratory, 3 hours laboratory.
Studio practice in letterpress printing to create limited-edition prints and books. Introduction to handset type, hand-carved relief plates and photopolymer plates. Emphasis on technical skills with tools and media, visual communication, and aesthetics of print media. [Transferability: CSU]

GID 93 LETTERPRESS PROJECTS 4 Units
Advisory: GID 92 or equivalent skill levels.
May be taken 3 times for credit.
2 hours lecture, 2 hours lecture-laboratory, 3 hours laboratory.
Application of principles and theories introduced in previously taken letterpress courses to student-motivated projects. Projects address information gathering, idea generation, concept development, production and distribution. [Transferability: CSU]

GID 94 BOOK ARTS PROFESSIONAL PRACTICES 3 Units
May be taken 6 times for credit.
6 hours lecture-laboratory.
Introduction to the professional practices of the book artist and book arts organizations. Application of strategies to create, critique, exhibit and distribute artist’s books. Participation in community based learning through the organization and implementation of book art events and activities. [Transferability: CSU]

GID 95 GRAPHIC ARTS STUDIO PROJECTS 4 Units
May be taken 6 times for credit.
2 hours lecture, 2 hours lecture-laboratory, 3 hours laboratory.
Application of principles and theories introduced in previously taken graphic arts courses to student-motivated projects. Projects address information gathering, idea generation, concept development, production and distribution. [Transferability: CSU]

GID 150 BOOK ARTS ACTIVITIES .5 Unit
GID 150X 1 Unit
GID 150Y 2 Units
GID 150Z 4 Units
Any combination of GID 150–150Z may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit.
1 hour lecture-laboratory for each .5 unit of credit.
Activities in the book arts. Specific topics to be determined by the instructor.

GID 151 PRINTMAKING STUDIO .5 Unit
GID 151X 1 Unit
GID 151Y 2 Units
GID 151Z 4 Units
Any combination of GID 151–151Z may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit.
1 hour lecture-laboratory for each .5 unit of credit.
Supervised studio practice in printmaking projects. Application of skills learned in previously taken graphic arts courses.

GID 150Y
GID 150Z
GID 150X
GID 150

GID 90 BOOK ARTS I 4 Units
May be taken 3 times for credit.
2 hours lecture, 2 hours lecture-laboratory, 3 hours laboratory.
Introduction to the skills and techniques of the book arts. Students will learn construction and mounting skills for books, boxes and portfolios. Traditional and non-traditional binding formats include stab, accordion, concertina and signature sewing. Emphasis on form building while exploring content and narrative. [Transferability: CSU]

GID 91 BOOK ARTS II 4 Units
Prerequisite: GID 90.
May be taken 3 times for credit.
2 hours lecture, 2 hours lecture-laboratory, 3 hours laboratory.
Continuation of Book Arts I. Studio experiences in making art that takes book form. Students will learn strategies for content development; design, layout and typography; and narrative structures, pacing and sequencing. Reproduction techniques include traditional and digital media including relief printing, stencil printing, transfer printing and commercial printing. Emphasis on content and narrative while advancing book construction skills. [Transferability: CSU]

GID 92 LETTERPRESS PRINTING 4 Units
Advisory: GID 50 and 74; not open to students with credit in GRDS 40.
May be taken 3 times for credit.
2 hours lecture, 2 hours lecture-laboratory, 3 hours laboratory.
Studio practice in letterpress printing to create limited-edition prints and books. Introduction to handset type, hand-carved relief plates and photopolymer plates. Emphasis on technical skills with tools and media, visual communication, and aesthetics of print media. [Transferability: CSU]

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GID 95 GRAPHIC ARTS STUDIO PROJECTS 4 Units
May be taken 6 times for credit.
2 hours lecture, 2 hours lecture-laboratory, 3 hours laboratory.
Application of principles and theories introduced in previously taken graphic arts courses to student-motivated projects. Projects address information gathering, idea generation, concept development, production and distribution. [Transferability: CSU]
HIST 4B  HISTORY OF WESTERN CIVILIZATION II  4 Units
Advisory: Eligibility for ENGL 1A or ESLL 26.
4 hours lecture.
Survey of the development of Western society and culture from<br>the early Middle Ages through the Age of Enlightenment. Emphasis upon<br>the cultural, social, intellectual, and institutional changes that led to<br>the birth of the modern Western culture and its interchange with the peoples<br>of the world’s continents. [Foothill GE: Humanities, Social & Behavioral<br>Sciences; Transferability: UC/CSU]

HIST 4C  HISTORY OF WESTERN CIVILIZATION  4 Units
1789–PRESENT
Advisory: Eligibility for ENGL 1A or ESLL 26. Not open to students<br>with credit in HIST 4CH.
4 hours lecture.
Survey of the development of Western society and culture during<br>the nineteenth and twentieth centuries. Emphasis upon the social,<br>intellectual, and institutional changes that have led to the contemporary<br>Western world and its interchange with the peoples and institutions<br>of the world’s continents. As an honors course, it is a full thematic seminar<br>with advanced teaching methods focusing on major writing, reading,<br>and research assignments, student class lectures, group discussions and<br>interactions. [Foothill GE: Humanities, Social & Behavioral Sciences;<br>Transferability: UC/CSU]

HIST 4CH  HONORS HISTORY OF WESTERN CIVILIZATION  4 Units
Prerequisite: Honors Institute participant.
Advisory: Eligibility for ENGL 1A or ESLL 26; not open to students<br>with credit in HIST 4C.
4 hours lecture.
Survey of the development of Western society and culture during<br>the nineteenth and twentieth centuries. Emphasis upon the social,<br>intellectual, and institutional changes that have led to the contemporary<br>Western world and its interchange with the peoples and institutions<br>of the world’s continents. As an honors course, it is a full thematic seminar<br>with advanced teaching methods focusing on major writing, reading,<br>and research assignments, student class lectures, group discussions and<br>interactions. [Foothill GE: Humanities, Social & Behavioral Sciences;<br>Transferability: UC/CSU]

HIST 8  HISTORY OF LATIN AMERICA  4 Units
Advisory: Eligibility for ENGL 1A or ESLL 26.
4 hours lecture.
History of Latin America from Pre-Columbian times to the present.<br>Emphasis upon Native and European contributions to present Latin<br>American culture. Special emphasis on governmental systems and<br>social and economic progress. Includes revolutionary movements and<br>their present status. [Foothill GE: Social & Behavioral Sciences;<br>Transferability: UC/CSU]

HIST 9  HISTORY OF CONTEMPORARY EUROPE  4 Units
Advisory: Eligibility for ENGL 1A or ESLL 26; not open to students<br>with credit in HIST 9H.
4 hours lecture.
Twentieth Century Europe. Political, social, and cultural developments<br>in recent European history. World War I and the consequences of<br>Versailles, Bolshevik Revolution and rise of Communism, Italian Fascism<br>and German Nazism. The diplomacy of World War II, Cold War, and<br>current developments in Western and Eastern Europe. Global impacts.<br>As an honors course, it is a full thematic seminar with advanced teaching<br>methods focusing on major writing, reading, and research assignments,<br>student class lectures, group discussions and interactions. [Foothill GE: United States Cultures & Communities, Social & Behavioral Sciences;<br>Transferability: UC/CSU]

HIST 9H  HONORS HISTORY OF CONTEMPORARY EUROPE  4 Units
Prerequisite: Honors Institute participant.
Advisory: Eligibility for ENGL 1A or ESLL 26; not open to students<br>with credit in HIST 9.
4 hours lecture.
Twentieth Century Europe. Political, social, and cultural developments<br>in recent European history. World War I and the consequences of<br>Versailles, Bolshevik Revolution and rise of Communism, Italian Fascism<br>and German Nazism. The diplomacy of World War II, Cold War, and<br>current developments in Western and Eastern Europe. Global impacts.<br>As an honors course, it is a full thematic seminar with advanced teaching<br>methods focusing on major writing, reading, and research assignments,<br>student class lectures, group discussions and interactions. [Foothill GE: United States Cultures & Communities, Social & Behavioral Sciences;<br>Transferability: UC/CSU]

HIST 10  HISTORY OF CALIFORNIA: THE MULTICULTURAL STATE  4 Units
Advisory: Eligibility for ENGL 1A or ESLL 26.
4 hours lecture.
Economic, social, intellectual and political development of multicultural<br>California. Survey of Indian, Spanish and Mexican periods. Analysis of role<br>and issues of ethnic/racial minorities during six major historical periods:<br>gold rush, railroad era, Great Depression, World War II, turbulent ‘60s and<br>present era. [Foothill GE: United States Cultures & Communities, Social<br>& Behavioral Sciences; Transferability: UC/CSU]

HIST 15  HISTORY OF MEXICO  4 Units
4 hours lecture.
Pre-Columbian civilizations, the Spanish conquest, and development of<br>Mexico since independence; evolution of political, economic and social<br>institutions; relationship with the United States. [Foothill GE: Social &<br>Behavioral Sciences; Transferability: UC/CSU]

HIST 16  INTRODUCTION TO ANCIENT ROME  4 Units
Advisory: HIST 4A or equivalent; eligibility for ENGL 1A or ESLL 26; not open to students with credit in HIST 16H.
4 hours lecture.
Chronological and topical survey of Roman history from the founding<br>of Rome to the reign of Constantine. Emphasis upon the political, social,<br>economic development in the Late Republic and Empire. Consideration<br>of literature, art, architecture, texts in translation. [Foothill GE: Social &<br>Behavioral Sciences; Transferability: UC/CSU]

HIST 16H  HONORS INTRODUCTION TO ANCIENT ROME  4 Units
Prerequisite: Honors Institute participant.
Advisory: HIST 4A or equivalent; eligibility for ENGL 1A or ESLL 26; not open to students with credit in HIST 16.
4 hours lecture.
Enhanced comprehensive study of Roman history from the founding<br>of Rome to the reign of Constantine. Emphasis upon the political, social,<br>economic development in the Late Republic and Empire. Consideration<br>of literature, art, architecture, texts in translation. As an honors course,<br>it is a full seminar with advanced teaching methods focusing on major<br>writing, reading, and research assignments, student class lectures, group<br>discussions and interactions. [Foothill GE: Social & Behavioral Sciences;<br>Transferability: UC/CSU]

HIST 17A  HISTORY OF THE UNITED STATES TO 1816  4 Units
Advisory: Eligibility for ENGL 1A or ESLL 26.
4 hours lecture.
American civilization through 1816. Survey of United States history,<br>Political, economic and social development. [Foothill GE: Social &<br>Behavioral Sciences; Transferability: UC/CSU]

HIST 17B  HISTORY OF THE UNITED STATES FROM 1812 TO 1914  4 Units
Advisory: Eligibility for ENGL 1A or ESLL 26.
4 hours lecture.
American civilization from 1812 to 1914. Survey of United States history<br>and its political, economic and social development. [Foothill GE: Social<br>& Behavioral Sciences; Transferability: UC/CSU]

HIST 17C  HISTORY OF THE UNITED STATES FROM 1900 TO THE PRESENT  4 Units
Advisory: Eligibility for ENGL 1A or ESLL 26.
4 hours lecture.
American civilization from 1900 to the present. Survey of United States<br>history and its political, economic and social development. [Foothill GE: Social & Behavioral Sciences; Transferability: UC/CSU]
HIST 18  INTRODUCTION TO MIDDLE EASTERN CIVILIZATION  4 Units
Advisory: Eligibility for ENGL 1A or ESLL 26.
4 hours lecture.
Civilization of the Middle East. History of the region, concentrating on the 19th and 20th centuries. European colonization, culture, institutions and religion. Political, economic, and social development of the area. [Foothill GE: Social & Behavioral Sciences; Transferability: UC/CSU]

HIST 20  HISTORY OF RUSSIA & THE SOVIET UNION  4 Units
Advisory: Eligibility for ENGL 1A or ESLL 26.
4 hours lecture.
Russian political and social development from the 10th Century to present. Emphasis on post-revolutionary Russia and problems of authoritarian modernization, independence, political and economic integration and industrialization. [Foothill GE: Social & Behavioral Sciences; Transferability: UC/CSU]

HIST 34H  HONORS INSTITUTE SEMINAR IN HUMANITIES  1 Unit
Formerly: HIST 34
Prerequisite: Honors Institute participant.
Advisory: Not open to students with credit in HIST 34.
1 hour lecture.
A seminar in directed readings, discussions and projects in history. Specific topics to be determined by the instructor. [Transferability: CSU; UC credit may be granted after transfer and upon portfolio review.]

HIST 36  SPECIAL PROJECTS IN HISTORY  1 Unit
HIST 36X  2 Units
HIST 36Y  3 Units
HIST 36Z  4 Units
Any combination of HIST 36–36Z may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit.
1 hour lecture for each unit of credit.
Advanced readings, research and/or project in history. Specific topics determined in consultation with instructor. [Transferability: CSU]

HUMN 1A  HUMANITIES & THE MODERN EXPERIENCE I  4 Units
4 hours lecture, 1 hour laboratory.
An interdisciplinary survey of some of the cultural aspects of major civilizations from the Mesopotamians to the Italian Renaissance, and their influence on modern experiences. Illustrations of the cultural diversity which makes up modern life. Attendance at instructor approved lectures, performing arts events, and/or cultural exhibitions. [Foothill GE: Humanities; Transferability: UC/CSU]

HUMN 1B  HUMANITIES & THE MODERN EXPERIENCE II  4 Units
4 hours lecture, 1 hour laboratory.
An interdisciplinary survey of the some of the cultural aspects of major civilizations from the Italian Renaissance to the present day, and their influence upon modern experiences. Illustrations of the cultural diversity which makes up modern life. Attendance at instructor approved lectures, performing arts events, and/or cultural exhibitions. [Foothill GE: Humanities; Transferability: UC/CSU]

HUMN 34H  HONORS INSTITUTE SEMINAR IN HUMANITIES  1 Unit
Formerly: HUMN 34
Prerequisite: HUMN 34
Advisory: Honors Institute participant.
Not open to students with credit in HUMN 34.
1 hour lecture.
A seminar in directed readings, discussions, and projects in humanities. Specific topics to be determined by the instructor. [Transferability: CSU; UC credit may be granted after transfer and upon portfolio review.]

HIST 36  SPECIAL PROJECTS IN HUMANITIES  1 Unit
HIST 36X  2 Units
HIST 36Y  3 Units
HIST 36Z  4 Units
Any combination of HIST 36–36Z may be taken for a total of 8 units, however no single course may be taken more than 6 times.
1 hour lecture for each unit of credit.
Intensive study of selected topics in humanities or interdisciplinary courses in humanities. Subjects may vary from quarter to quarter. [Transferability: CSU]

ITALIAN


JAPANESE

Language Arts  (650) 949-7556  www.foothill.edu/la/

JAPN 1  ELEMENTARY JAPANESE I  5 Units
5 hours lecture.
Oral and written practice in the minimum competencies in language functions: vocabulary essential to basic communicative situations, grammar necessary for carrying out functions, signals for carrying out communicative tasks, and cultural skills in specific situations. Introduction to Hiragana, Katakana and about 80 Kanji. Language laboratory practice. [Foothill GE: Humanities; Transferability: UC/CSU]

JAPN 2  ELEMENTARY JAPANESE II  5 Units
Prerequisite: JAPN 1 or 1 year of high school Japanese.
5 hours lecture.

JAPN 3  ELEMENTARY JAPANESE III  5 Units
Prerequisite: JAPN 2 or two years of high school Japanese.
5 hours lecture.

JAPN 4  INTERMEDIATE JAPANESE I  5 Units
Prerequisite: JAPN 3 or 3 years of high school Japanese.
5 hours lecture.
Continuation of JAPN 3. Review of grammar and discussion of grammatical features beyond the elementary level. Introduction to intermediate-level grammar and communicative tasks. Intensive oral and written drills, including additional 110 Kanji, in idiomatic constructions. Composition, conversation and selected readings. Language laboratory practice. [Foothill GE: Humanities; Transferability: UC/CSU]
JAPN 5 INTERMEDIATE JAPANESE II 5 Units
Prerequisite: JAPN 4 or four years of high school Japanese. 5 hours lecture.
Continuation of Japanese 4. Development of intermediate-level grammatical structures and communicative tasks. Further practice in intensive oral and written drills, including additional 150 Kanji, in idiomatic constructions. Composition, conversation and selected readings. Differentiating socio-linguistic features, such as honorifics, feminine and masculine styles. Cultural skills to carry out tasks. Language laboratory practice. [Foothill GE: Humanities; Transferability: UC/CSU]

JAPN 6 INTERMEDIATE JAPANESE III 5 Units
Prerequisite: JAPN 5. 5 hours lecture.
Continuation of JAPN 5. Further development of intermediate-level grammatical structures and communicative tasks. Intensive and extensive oral and written drills, including 230 more Kanji, in idiomatic constructions. Composition, conversation and selected readings. Further competency in correct language usage in different socio-linguistic features of speech. Stating and supporting opinions on both concrete and abstract topics. Cultural skills to carry out tasks. Language laboratory practice. [Foothill GE: Humanities; Transferability: UC/CSU]

JAPN 13A INTERMEDIATE CONVERSATION I 4 Units
Prerequisite: JAPN 3. Advisory: May be taken concurrently with JAPN 4. May be taken 6 times for credit. 4 hours lecture.
Speaking and listening experience in culturally appropriate ways. Special emphasis on correct perception and speaking, and familiarity with oral idioms and grammar as they differ from more formal written and literary uses. Development of critical thinking skills by comparing different viewpoints and different values of diverse cultures. Development of listening and speaking skills by exploring various forms of authentic materials, including magazines, newspaper articles, editorials, literature, and abstract topics. Cultural skills to carry out tasks. Language laboratory practice. [Foothill GE: Humanities; Transferability: UC/CSU]

JAPN 13B INTERMEDIATE CONVERSATION II 4 Units
Prerequisite: JAPN 13A. Advisory: May be taken concurrently with JAPN 5. May be taken 6 times for credit. 4 hours lecture, 2 hours laboratory.
Continuation of JAPN 13A. Speaking and listening experience in an environment of increasingly challenging language situation in culturally appropriate ways. Special emphasis on rapidity of correct perception and speaking, acquaintance with a variety of native dialects, and familiarity with oral idioms and grammar as they differ from more formal written and literary uses. Development of critical thinking skills by comparing different viewpoints and different values of diverse cultures. Development of listening and speaking skills by exploring various forms of authentic materials, such as current news media, political speech, and debates. Stating and supporting opinions on various topics. Understanding ambiguities, vagaries, and value inherent in the target language. [Foothill GE: Humanities; Transferability: UC/CSU]

JAPN 14A ADVANCED CONVERSATION I 4 Units
Prerequisite: JAPN 13B. May be taken 6 times for credit. 4 hours lecture.
Development of fluency in the oral/aural language, and cultural skills required in socio-linguistic functions, i.e., honorifics, in-group/out-group, male/female, and formal/informal expressions. Development of critical thinking skills by comparing different viewpoints and different values of diverse cultures. Development of listening and speaking skills by exploring various forms of authentic materials, such as current news media, political speech, debates, and drama. Stating and supporting opinions on various topics, including abstract concepts. Understanding and appreciating ambiguities, vagaries, and value inherent in the target language. [Transferability: UC/CSU]

JAPN 14B ADVANCED CONVERSATION II 4 Units
Prerequisite: JAPN 14A. Advisory: May be taken concurrently with JAPN 6. May be taken 6 times for credit. 4 hours lecture.
Continuation of JAPN 14A. Development of advanced level of oral/aural fluency in the language, and cultural skills required in socio-linguistic functions. Stating and supporting opinions on complex, abstract topics. Analyzing and hypothesizing. Understanding cultural differences, persuading, negotiating, and giving speech in formal settings. Development of critical thinking skills by comparing different viewpoints and different values of diverse cultures. Development of listening and speaking skills by exploring various forms of authentic materials, such as current news media, debates on various issues, and drama. [Transferability: UC/CSU]

JAPN 23 MODERN JAPANESE SOCIETY, CULTURE & BUSINESS CUSTOMS 3 Units
Prerequisite: JAPN 3 or equivalent. May be taken 6 times for credit. 3 hours lecture.
Introduction to basic Japanese business conversation, etiquette, and business considerations. Awareness of culturally appropriate behavior and body language, the practice of gift-giving, and socializing within a business setting. Understanding of decision-making processes in Japanese corporate culture. [Transferability: CSU]

JAPN 25A ADVANCED COMPOSITION & READING 4 Units
Prerequisite: JAPN 6. 3 hours lecture.
Introduction to authentic Japanese written materials intended for native Japanese readers, such as magazine articles, editorials, statistics, and literature. Reading and analysis of texts as exponents of the culture and history. Compositions and advanced grammar. Recognizing about 1,300 kanji. Development of critical thinking skills by comparing different viewpoints and different values of diverse cultures. Development of reading and writing skills by exploring various forms of literary and other forms of creative thoughts. Understanding ambiguities, vagaries, and value inherent in the target language. [Foothill GE: Humanities; Transferability: UC/CSU]

JAPN 25B ADVANCED COMPOSITION & READING 4 Units
Prerequisite: JAPN 25A. 4 hours lecture.
Continuation of JAPN 25A. Reading and analysis of authentic Japanese written materials intended for native Japanese readers, as exponents of the culture and history. Development of further skills in reading authentic materials, including magazines, newspaper articles, editorials, literature, and abstract theories. Recognizing more than 1,800 kanji. Practice in writing expository essays. Development of critical thinking skills by comparing different viewpoints and different values of diverse cultures. Development of reading and writing skills by exploring various forms of literary and other forms of creative thoughts. Understanding and appreciating the ambiguities, vagaries, and value inherent in the target language. [Foothill GE: Humanities; Transferability: UC/CSU]

JAPN 33 INTRODUCTION TO JAPANESE CULTURE 4 Units
Advisory: Concurrent enrollment in JAPN 1, 2, or 3 recommended. 4 hours lecture.
Introduction to Japanese culture, Zen and Confucian influences on social ethics, behavior and attitudes. Emphasis on practical application of discipline and expression through development of skill in brush writing, and analysis and interpretation of haiku. [Foothill GE: Humanities; Transferability: UC/CSU]
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>JAPN 103</td>
<td>JAPANESE BUSINESS CULTURE &amp; ETIQUETTE</td>
<td>1 Unit</td>
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<tr>
<td>JRYM 100</td>
<td>BUILDING TRADES TEACHER DEVELOPMENT</td>
<td>5 Units</td>
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<tr>
<td>JRYM 101A</td>
<td>BASIC ELECTRICITY FOR SHEET METAL AIR CONDITIONING SERVICE</td>
<td>4.5 Units</td>
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<td>JRYM 101B</td>
<td>ADVANCED ELECTRICITY FOR SHEET METAL AIR CONDITIONING SERVICE</td>
<td>4.5 Units</td>
</tr>
<tr>
<td>JRYM 102A</td>
<td>BASIC REFRIGERATION FOR SHEET METAL AIR CONDITIONING SERVICE</td>
<td>4.5 Units</td>
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<td>JRYM 102B</td>
<td>ADVANCED REFRIGERATION FOR SHEET METAL AIR CONDITIONING SERVICE</td>
<td>4.5 Units</td>
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<tr>
<td>JRYM 103A</td>
<td>PROPERTIES OF AIR DISTRIBUTION METAL AIR CONDITIONING SERVICE</td>
<td>4.5 Units</td>
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<tr>
<td>JRYM 103B</td>
<td>REFRIGERATION THEORY FOR SHEET METAL AIR CONDITIONING SERVICE</td>
<td>4.5 Units</td>
</tr>
<tr>
<td>JRYM 104</td>
<td>SHEET METAL JOURNEY &amp; INSTRUMENTS FOR JOURNEYPERSONS (FIRST YEAR)</td>
<td>2.5 Units</td>
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<tr>
<td>JRYM 152A</td>
<td>HVAC BASIC SYSTEMS FOR SHEET METAL JOURNEYPERSONS</td>
<td>4.5 Units</td>
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<tr>
<td>JRYM 152B</td>
<td>TEMPERATURE MEASUREMENT INSTRUMENTS &amp; DUCT SYSTEMS FOR JOURNEYPERSONS (FIRST YEAR)</td>
<td>2.5 Units</td>
</tr>
<tr>
<td>JRYM 153A</td>
<td>AIR BALANCE TEST EQUIPMENT &amp; INSTRUMENTS FOR JOURNEYPERSONS (FIRST YEAR)</td>
<td>2.5 Units</td>
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<tr>
<td>JRYM 153B</td>
<td>TEMPERATURE MEASUREMENT INSTRUMENTS &amp; DUCT SYSTEMS FOR JOURNEYPERSONS (FIRST YEAR)</td>
<td>2.5 Units</td>
</tr>
</tbody>
</table>

All courses on this page are Title 5 degree applicable credit courses unless otherwise noted.

Foothill College 2010–2011 • www.foothill.edu
JRYM 154 RECIPROCATING REFRIGERATION 4.5 Units
Prerequisite: Completion of Sheet Metal Apprenticeship Program; current employment in the sheet metal industry.
9 hours lecture-laboratory.
Fundamentals of reciprocating refrigeration systems including refrigeration system control equipment. Development of basic skills necessary for sheet metal workers to service reciprocating refrigeration systems.

JRYM 155A BASIC ELECTRICITY FOR SHEET 4.5 Units
METAL A/C SERVICE
Prerequisite: Completion of HVAC basic systems; current employment in the sheet metal industry.
9 hours lecture-laboratory.
Development of basic skills in electricity necessary for air conditioning service. Includes basic electrical theory, electrical components and symbols, wiring diagrams, voltage systems, refrigeration systems, and electric motors.

JRYM 157 HAZARDOUS MATERIALS TRAINING 2 Units
FOR THE TRADES
Prerequisite: Completion of HVAC basic systems; current employment in the sheet metal industry.
9 hours lecture-laboratory.
A short course for the experienced welder. The focus will be certification by the Sheet Metal National Training Fund. All electrical welding processes will be taught.

JRYM 158 HAZARDOUS MATERIALS 0.5 Unit
RECERTIFICATION FOR THE TRADES
Prerequisite: Current employment in a construction trade; JRYM 157.
8 hours lecture-laboratory.
Updated information on the emergency response to hazardous materials incidents. Course will follow the requirements set forth in Publication 29 CFR 1910. Covers current changes in law and a brief overview of chemical hazards, gas hazards, electrical hazards, personal protective equipment, confined space rescue, monitoring equipment, and laws governing hazardous materials response.

JRYM 165 PRE-APPRENTICE INTRODUCTION 2.5 Units
TO SHEET METAL
4.5 hours lecture-laboratory.
Pre-entry level instruction to the Sheet Metal Apprenticeship Program. Basic instruction on the sheet metal industry, equipment trade math, drafting, materials and equipment safety.

JRYM 166A MARINE SHEET METAL TRAINING I 2.5 Units
FOR NON-APPRENTICES
Prerequisite: Completion of Sheet Metal Apprenticeship Program; current employment in the sheet metal industry.
4.5 hours lecture-laboratory.
Working of metals in sheet form. Structural shapes, such as angle bar, channels, flat bar, rod and wire are also extensively used. Metals of varying thicknesses, from a few thousandths of an inch to $\frac{1}{6}$th of an inch, are used. Proper techniques and procedures are demonstrated for the different characteristics of each metal studied. Some of the metals used are copper, brass, bronze, lead, zinc, aluminum, black and galvanized iron, monel and stainless steel.

JRYM 166B MARINE SHEET METAL TRAINING II 2.5 Units
FOR NON-APPRENTICES
Prerequisite: Completion of Sheet Metal Apprenticeship Program; current employment in the sheet metal industry.
4.5 hours lecture-laboratory.
Continuation of working with metals in sheet form. Structural shapes, such as angle bar, channels, flat bar, rod and wire are also extensively used. Metals of varying thicknesses, from a few thousandths of an inch to $\frac{1}{6}$th of an inch, are used. Proper techniques and procedures are demonstrated for the different characteristics of each metal studied. Some of the metals used are copper, brass, bronze, lead, zinc, aluminum, black and galvanized iron, monel and stainless steel.

JRYM 168A JOURNEYLEVEL DIGITAL SYSTEMS I 2.5 Units
Prerequisite: Current employment in the sheet metal industry.
4.5 hours lecture-laboratory.
Provide training in the following domains-fundamentals of measurement; operation of pressure, flow, level and temperature instruments; safety practices; calibration; process control fundamentals; loop checking, troubleshooting, start-up, documentation; maintenance and repair; and using micro-processor-based instruments and controllers.

JRYM 168B JOURNEYLEVEL DIGITAL SYSTEMS II 2.5 Units
Prerequisite: Current employment in the sheet metal industry.
4.5 hours lecture-laboratory.
Continued training in the following domains-calibration; process control fundamentals; loop checking, troubleshooting, start-up, documentation; maintenance and repair; and using micro-processor-based instruments and controllers.

JRYM 169A FIELD MEASUREMENT & LAYOUT 2.5 Units
FOR SHEET METAL JOURNEYPERSONS I
Prerequisite: Current employment in the sheet metal industry.
4.5 hours lecture-laboratory.
Advanced methods of pattern development using the hand-held calculator. Will use the pythagorean theorem, parallel layout and radial line layout with applications, and triangulation. Intended for experienced sheet metal journeypersons who wish to further their knowledge in the latest methods of layout.

JRYM 170A ADVANCED SHEET METAL SERVICE I 4.5 Units
Prerequisite: Current employment in the sheet metal industry.
9 hours lecture-laboratory.
In-depth study of HVAC systems, electricity, measurements; testing, adjusting and balancing for sheet metal service persons. Fluid flow, heat transfer, motors, starters and equations commonly used for testing will be covered.

JRYM 170B ADVANCED SHEET METAL SERVICE II 4.5 Units
Prerequisite: Current employment in the sheet metal industry.
9 hours lecture-laboratory.
Continued in-depth study of HVAC systems. Air balancing, hydronic systems, pumps, U.S. and metric equivalents and conversions, heat and refrigeration will be covered.

JRYM 172A ELECTRICAL SYSTEM OPERATION, CONTROLS & DEVICES FOR JOURNEYPERSONS (SECOND YEAR) 2.5 Units
Prerequisite: JRYM 171A, 171B, 17C or current employment as a detailer in the sheet metal industry.
4.5 hours lecture-laboratory.
Study of individual electrical components and devices of control systems, and understanding their operation and relationship to each other. Identify and use instruments in measuring air movement. Learn how to interpret, use and understand drawings relating to the construction of a building.

JRYM 172B HVAC TESTING & BALANCING PROCEDURES FOR JOURNEYPERSONS (SECOND YEAR) 2.5 Units
Prerequisite: Completion of Sheet Metal Apprenticeship Program; current employment in the sheet metal industry.
4.5 hours lecture-laboratory.
Utilize skills and knowledge previously learned to apply methods of balancing HVAC systems. Balancing of systems will include both air and hydronic. Information gathered during the balancing will be used in completing reports required by the building engineer and owner.

All courses on this page are Title 5 degree applicable credit courses unless otherwise noted.
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**JRYM 173A**  AIR DISTRIBUTION & MANUFACTURING SYSTEMS FOR JOURNEYPERSONS (THIRD YEAR)  2.5 Units

Prerequisite: Completion of Sheet Metal Apprenticeship Program; current employment in the sheet metal industry.

4.5 hours lecture-laboratory.

The difference, advantages and disadvantages of pneumatic and direct digital control systems will be compared to electrical systems. Students will use laptop computers to access a control system from a remote location; take readings and make minor adjustments to the system. Clean room operation and protocol will be examined.

**JRYM 173B**  SYSTEMS INSTALLATION & TROUBLESHOOTING FOR JOURNEYPERSONS (THIRD YEAR)  2.5 Units

Prerequisite: Completion of Sheet Metal Apprenticeship Program; current employment in the sheet metal industry.

4.5 hours lecture-laboratory.

Proper layout and installation procedures on various control systems. This will include system programming, adjustment, testing, maintenance and repair of the installed system.

**LANGUAGE ARTS**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>L A 36</strong></td>
<td>SPECIAL PROJECTS IN LANGUAGE ARTS</td>
<td>1 Unit</td>
</tr>
<tr>
<td><strong>L A 36X</strong></td>
<td>LANGUAGE ARTS</td>
<td>2 Units</td>
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<tr>
<td><strong>L A 36Y</strong></td>
<td>LANGUAGE ARTS</td>
<td>3 Units</td>
</tr>
<tr>
<td><strong>L A 36Z</strong></td>
<td>LANGUAGE ARTS</td>
<td>4 Units</td>
</tr>
</tbody>
</table>

Any combination of L A 36–36Z may be taken 6 times for credit; however, no single course may be taken more than 6 times for credit. 1 hour lecture for each unit of credit.

A seminar emphasizing research, criticism, individual study, and field work. Discussions in individual projects under instructor’s supervision. Specific topics will vary from quarter to quarter. This course cannot be substituted for departmental requirements. Enrollment for this course is available in the Language Arts Division Office. [Transferability: CSU]

**L A 80**  INTRODUCTION TO TUTOR TRAINING  1 Unit

Advisory: Eligibility for ENGL 1A.

May be taken 6 times for credit. 2 hours lecture-laboratory.

Introduction to theories and methods of effective tutoring, including role of a tutor, relationship of tutor to learner, assessment of learner, and creating a lesson plan, utilizing different methods. [Transferability: CSU]

**L A 111**  PASS THE TORCH TEAM LEADER TRAINING  1 Unit

Prerequisite: An earned “A” or “B+” grade with instructor recommendation in one of the following courses: ESLL 25, 26; ENGL 100, 110, 1A, 1B; student must currently be a team leader for a Pass the Torch study team.

May be taken 3 times for credit. 1 hour lecture.

Training in team leading skills necessary for assisting a member in the Pass the Torch Program, including study skills, college policies, professionalism, ethics and role modeling of successful student behavior. Techniques of subject-specific tutoring skills, with attention given to diverse learning styles. Practice of these skills through sample student works and, when applicable, content-specific suggestions from the member’s instructor.

**L A 180X**  SPECIAL STUDIES IN EFFECTIVE INSTRUCTIONAL PRACTICES  1 Unit

Non-degree applicable credit course. May be taken 6 times for credit. 1 hour lecture.

Lecture on and discussion of effective instructional practices. Exploration of best practices in instructional design and assessment theory and research. Practice in developing curriculum in a variety of disciplines. Collaborative design of pedagogies that deepen learning of skills.

**L A 189**  SPECIAL STUDIES LABORATORY  .5 Unit

L A 189X | 1 Unit
L A 189Y | 1.5 Units
L A 189Z | 2 Units

Non-degree applicable credit course. Advisory: Pass/No Pass. Any combination of L A 189–189Z may be taken 6 times for credit; however, no single course may be taken more than 6 times for credit. 1.5 hours laboratory for each .5 unit.

For students who desire or require additional help in attaining comprehension and competency in learning skills.

**L A 190**  DIRECTED STUDY  1 Unit

L A 190X | 1 Unit
L A 190Y | 1.5 Units
L A 190Z | 2 Units

Non-degree applicable credit course. Advisory: Pass/No Pass. May be taken 6 times for credit. 1 hour lecture, 3 hours laboratory.

For students who desire training and technical support in experiential learning as a community volunteer in specific language arts disciplines.

**LEARNING IN NEW MEDIA CLASSROOMS**

Computers, Technology & Information Systems  (650) 949-7498

LINC 50  TECHNOLOGY IN THE K–12 CLASSROOM I  1 Unit

Formerly: LINC 255

Advisory: Familiarity with PC or Mac.

May be taken 6 times for credit. 1 hour lecture.

Using a variety of software applications, the student moves beyond the world of traditional multimedia authoring to construct computer based simulation to express his/her understanding of virtually any academic topic. [Transferability: CSU]

LINC 50A  TECHNOLOGY IN THE K–12 CLASSROOM II  .5 Unit

Formerly: LINC 255S

Advisory: Familiarity with PC or Mac.

May be taken 6 times for credit. .5 hour lecture.

Using a variety of software applications, the student moves beyond the world of traditional multimedia authoring to construct computer based simulation to express his/her understanding of virtually any academic topic. [Transferability: CSU]

LINC 50B  TECHNOLOGY IN THE K–12 CLASSROOM III  .5 Unit

Formerly: LINC 255T

Advisory: Familiarity with PC or Mac.

May be taken 6 times for credit. .5 hour lecture.

Using a variety of software applications, the student moves beyond the world of traditional multimedia authoring to construct computer based simulation to express his/her understanding of virtually any academic topic. [Transferability: CSU]
LINC 50F INTEGRATING TECHNOLOGY INTO A STANDARDS-BASED CURRICULUM I  2 Units
Formerly: LINC 225
Advisory: Familiarity with PC or Mac; basic internet skills.
May be taken 6 times for credit.
2 hours lecture.
How to integrate a student-centered technology project based on the California Content Standards, ISTE Technology Standards, and new California Technology Standards for teacher certification into classroom curriculum. Techniques in creating a student project as well as assessment and integration of technology into projects will be taught.
[Transferability: CSU]

LINC 50G INTEGRATING TECHNOLOGY INTO A STANDARDS-BASED CURRICULUM I (BTSA)  1 Unit
Formerly: LINC 225S
Advisory: Familiarity with PC or Mac; basic internet skills.
Must be taken 6 times for credit.
1 hour lecture, 1 hour terminal time.
How to integrate a student-centered technology project based on the California Content Standards, ISTE Technology Standards, and new California Technology Standards for teacher certification into classroom curriculum. Techniques in creating a student project as well as assessment and integration of technology into projects will be taught.

LINC 51 INTEGRATING TECHNOLOGY INTO LANGUAGE ARTS  1 Unit
Formerly: LINC 261
Advisory: Familiarity with PC or Mac; familiarity with basic internet skills.
May be taken 6 times for credit.
1 hour lecture, 1 hour terminal time.
How to integrate a student-centered technology project based on the California Language Arts Content Standards, State approved language arts text books, ISTE Technology Standards, and new California Technology Standards for teacher certification into classroom curriculum. Techniques in creating technology rich student assignments project that support the content standards and No Child Left Behind Act as well as assessment and integration of technology into projects will be taught.
[Transferability: CSU]

LINC 51A INTEGRATING TECHNOLOGY INTO LANGUAGE ARTS K–5  .5 Unit
Formerly: LINC 261S
Advisory: Familiarity with PC or Mac; familiarity with basic internet skills.
May be taken 6 times for credit.
.5 hour lecture, .5 hour terminal time.
How to integrate a student-centered technology project based on the California Language Arts Content Standards, State approved language arts text books, ISTE Technology Standards, and new California Technology Standards for teacher certification into classroom curriculum. Techniques in creating technology rich student assignments project that support the content standards and No Child Left Behind Act as well as assessment and integration of technology into projects will be taught.
[Transferability: CSU]

LINC 51B INTEGRATING TECHNOLOGY INTO LANGUAGE ARTS 6–8  .5 Unit
Formerly: LINC 261T
Advisory: Familiarity with PC or Mac; familiarity with basic internet skills.
May be taken 6 times for credit.
.5 hour lecture, .5 hour terminal time.
How to integrate a student-centered technology project based on the California Language Arts Content Standards, State approved language arts text books, ISTE Technology Standards, and new California Technology Standards for teacher certification into classroom curriculum. Techniques in creating technology rich student assignments project that support the content standards and No Child Left Behind Act as well as assessment and integration of technology into projects will be taught.
[Transferability: CSU]

LINC 52 INTEGRATING TECHNOLOGY INTO SCIENCE  1 Unit
Formerly: LINC 262
Advisory: Familiarity with PC or Mac; familiarity with basic Internet skills.
May be taken 6 times for credit.
1 hour lecture, 1 hour terminal time.
How to integrate a student-centered technology project based on the California Language Arts Content Standards, State approved language arts text books, ISTE Technology Standards, and new California Technology Standards for teacher certification into classroom curriculum. Techniques in creating technology rich student assignments project that support the content standards and No Child Left Behind Act as well as assessment and integration of technology into projects will be taught.
[Transferability: CSU]

LINC 52A INTEGRATING TECHNOLOGY INTO SCIENCE K–5  .5 Unit
Formerly: LINC 262S
Advisory: Familiarity with PC or Mac; familiarity with basic internet skills.
May be taken 6 times for credit.
.5 hour lecture, .5 hour terminal time.
How to integrate a student-centered technology project based on the California Language Arts Content Standards, State approved language arts text books, ISTE Technology Standards, and new California Technology Standards for teacher certification into classroom curriculum. Techniques in creating technology rich student assignments project that support the content standards and No Child Left Behind Act as well as assessment and integration of technology into projects will be taught.
[Transferability: CSU]

LINC 52B INTEGRATING TECHNOLOGY INTO SCIENCE 6–8  .5 Unit
Formerly: LINC 262T
Advisory: Proficiency in Mac or Windows operating system, software conventions, and internet technologies.
May be taken 4 times for credit.
.5 hour lecture.
Designed for middle-school science educators to create student-centered projects using educational technology. Develop an inquiry-based science curriculum integration plan based on the California Science Content Standards for a project.
[Transferability: CSU]

LINC 52D TEACHING SCIENCE USING BAY AREA MUSEUMS  2 Units
Formerly: LINC 267
May be taken 6 times for credit.
2 hours lecture.
This course addresses the growing need for K–8 teachers to change the way they teach science and improve student science literacy/achievement. This course helps teachers to develop their own science content best practice knowledge while learning to use online resources for curriculum alignment with the CA science standards and many different Bay Area science, technology, and children’s museums, zoos, aquariums, nature centers, observatories/planetariums, and other informal science institutions.
[Transferability: CSU]

LINC 53 INTEGRATING TECHNOLOGY INTO MATHEMATICS  1 Unit
Formerly: LINC 263
Advisory: Familiarity with PC or Mac; familiarity with basic internet skills.
May be taken 6 times for credit.
1 hour lecture, 1 hour terminal time.
How to integrate a student-centered technology project based on the California Mathematics Content Standards, State approved Mathematics text books, ISTE Technology Standards, and new California Technology Standards for teacher certification into classroom curriculum. Techniques in creating technology rich student assignments project that support the content standards and No Child Left Behind Act as well as assessment and integration of technology into projects will be taught.
[Transferability: CSU]
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LINC 53A</td>
<td>INTEGRATING TECHNOLOGY INTO MATHEMATICS K–5</td>
<td>.5</td>
<td>How to integrate a student-centered technology project based on the California Mathematics Content Standards, State approved Mathematics text books, ISTE Technology Standards, and new California Technology Standards for teacher certification into classroom curriculum. Techniques in creating technology rich student assignments project that support the content standards and No Child Left Behind Act as well as assessment and integration of technology into projects will be taught. [Transferability: CSU]</td>
</tr>
<tr>
<td>LINC 53B</td>
<td>INTEGRATING TECHNOLOGY INTO MATHEMATICS 6–8</td>
<td>.5</td>
<td>How to integrate a student-centered technology project based on the California Mathematics Content Standards, State approved Mathematics text books, ISTE Technology Standards, and new California Technology Standards for teacher certification into classroom curriculum. Techniques in creating technology rich student assignments project that support the content standards and No Child Left Behind Act as well as assessment and integration of technology into projects will be taught. [Transferability: CSU]</td>
</tr>
<tr>
<td>LINC 54A</td>
<td>INTEGRATING TECHNOLOGY INTO SOCIAL STUDIES K–12</td>
<td>.5</td>
<td>Introductory course for integrating a student-centered technology project based on the California Social Studies Content Standards into classroom curriculum. Develop techniques for creating technology rich student assignments, projects, and assessments. [Transferability: CSU]</td>
</tr>
<tr>
<td>LINC 54B</td>
<td>INTEGRATING TECHNOLOGY INTO SOCIAL STUDIES 6–8</td>
<td>.5</td>
<td>How to integrate a student-centered technology project based on the California Social Studies Content Standards into classroom curriculum. Develop techniques for creating technology rich student assignments, projects, and assessments. [Transferability: CSU]</td>
</tr>
<tr>
<td>LINC 55</td>
<td>LEARNING A FOREIGN LANGUAGE USING TECHNOLOGY I</td>
<td>3</td>
<td>How to integrate a student-centered technology project based on the California Mathematics Content Standards, State approved Mathematics text books, ISTE Technology Standards, and new California Technology Standards for teacher certification into classroom curriculum. Techniques in creating technology rich student assignments project that support the content standards and No Child Left Behind Act as well as assessment and integration of technology into projects will be taught. [Transferability: CSU]</td>
</tr>
<tr>
<td>LINC 55A</td>
<td>LEARNING A FOREIGN LANGUAGE USING TECHNOLOGY II</td>
<td>2</td>
<td>How to integrate a student-centered technology project based on the California Mathematics Content Standards, State approved Mathematics text books, ISTE Technology Standards, and new California Technology Standards for teacher certification into classroom curriculum. Techniques in creating technology rich student assignments project that support the content standards and No Child Left Behind Act as well as assessment and integration of technology into projects will be taught. [Transferability: CSU]</td>
</tr>
<tr>
<td>LINC 58</td>
<td>GLOBAL PROJECT-BASED LEARNING</td>
<td>2</td>
<td>How to integrate a student-centered technology project based on the California Mathematics Content Standards, State approved Mathematics text books, ISTE Technology Standards, and new California Technology Standards for teacher certification into classroom curriculum. Techniques in creating technology rich student assignments project that support the content standards and No Child Left Behind Act as well as assessment and integration of technology into projects will be taught. [Transferability: CSU]</td>
</tr>
<tr>
<td>LINC 58A</td>
<td>E-PORTFOLIOS</td>
<td>1</td>
<td>How to integrate a student-centered technology project based on the California Mathematics Content Standards, State approved Mathematics text books, ISTE Technology Standards, and new California Technology Standards for teacher certification into classroom curriculum. Techniques in creating technology rich student assignments project that support the content standards and No Child Left Behind Act as well as assessment and integration of technology into projects will be taught. [Transferability: CSU]</td>
</tr>
<tr>
<td>LINC 58B</td>
<td>CHOOSING THE BEST MEDIA FOR PROJECTS</td>
<td>2</td>
<td>How to integrate a student-centered technology project based on the California Mathematics Content Standards, State approved Mathematics text books, ISTE Technology Standards, and new California Technology Standards for teacher certification into classroom curriculum. Techniques in creating technology rich student assignments project that support the content standards and No Child Left Behind Act as well as assessment and integration of technology into projects will be taught. [Transferability: CSU]</td>
</tr>
</tbody>
</table>
LINC 60A INTRODUCTION TO THE MACINTOSH 1 Unit
Formerly: LINC 296
Advisory: Familiarity with Mac.
May be taken 6 times for credit.
1 hour lecture, 1 hour terminal time.
Provides hands on experience with a Macintosh computer. Hardware components and capabilities will be explored, along with basic troubleshooting skills. [Transferability: CSU]

LINC 60B INTRODUCTION TO THE PC 1 Unit
Formerly: LINC 296
Advisory: Familiarity with PC.
May be taken 6 times for credit.
1 hour lecture, 1 hour terminal time.
Provides hands on experience with a Windows environment on a PC. Hardware components and capabilities will be explored, along with basic troubleshooting skills. [Transferability: CSU]

LINC 60J PROGRAMMING 1 Unit
Formerly: LINC 299
May be taken 6 times for credit.
1 hour lecture.
Programming with Alice will teach you to program a computer, but uses a completely different and more enjoyable approach which allows students to drag-and-drop words in a direct manipulation interface rather than having to correctly type commands according to obscure rules of syntax. In addition, Alice defines object-based programming by providing animated, on-screen 3D virtual objects. [Transferability: CSU]

LINC 60K GAME-BASED LEARNING 1 Unit
Formerly: LINC 243
Advisory: Familiarity with PC or Mac.
May be taken 6 times for credit.
1 hour lecture.
Using the software application, STAGECAST CREATOR, the student moves beyond the world of traditional multimedia authoring to construct computer based simulation to express his/her understanding of virtually any academic topic. [Transferability: CSU]

LINC 61A MICROSOFT OFFICE 1 Unit
Formerly: LINC 272
Advisory: Familiarity with PC or Mac; basic internet skills.
May be taken 6 times for credit.
1 hour lecture, 1 hour terminal time.
Provides students with an overview of Microsoft Office. Hands on experience of Word, Power Point and Excel will give students a basic knowledge of the classroom uses of the Office Suite. [Transferability: CSU]

LINC 61B IWORK: PAGES, KEYNOTE & NUMBERS 1 Unit
Formerly: LINC 250
Advisory: Basic understanding of a Mac.
May be taken 6 times for credit.
1 hour lecture, 1 hour terminal time.
AppleWorks allows you to create word processed documents, draw, paint, create spreadsheets with charts and graphs and create a basic data base. In this course you will get an overview of how to use the various components of AppleWorks. [Transferability: CSU]

LINC 61C IWORK I .5 Unit
Formerly: LINC 250S
Advisory: Basic understanding of a Mac.
May be taken 6 times for credit.
.5 hour lecture, .5 hour terminal time.
AppleWorks allows you to create word processed documents, draw, paint, create spreadsheets with charts and graphs and create a basic data base. In this course you will get an overview of how to use the various components of AppleWorks. [Transferability: CSU]

LINC 61D IWORK II .5 Unit
Formerly: LINC 250T
Advisory: Basic understanding of a Mac.
May be taken 6 times for credit.
.5 hour lecture, .5 hour terminal time.
AppleWorks allows you to create word processed documents, draw, paint, create spreadsheets with charts and graphs and create a basic data base. In this course you will get an overview of how to use the various components of AppleWorks. [Transferability: CSU]

LINC 62 MICROSOFT WORD I 1 Unit
Formerly: LINC 270
Advisory: Familiarity with PC or Mac.
May be taken 6 times for credit.
1 hour lecture, 1 hour terminal time.
Provides Hands-on experience including formatting, editing, saving, and printing letters, memos, and other short documents, inserting text boxes and graphics, composing tables, headers and footers, and editing and merging documents. [Transferability: CSU]

LINC 62A MICROSOFT WORD II .5 Unit
Formerly: LINC 270S
Advisory: Familiarity with PC or Mac.
May be taken 6 times for credit.
.5 hour lecture, .5 hour terminal time.
Provides Hands-on experience including formatting, editing, saving, and printing letters, memos, and other short documents, inserting text boxes and graphics, composing tables, headers and footers, and editing and merging documents. [Transferability: CSU]

LINC 62B MICROSOFT WORD III .5 Unit
Formerly: LINC 270T
Advisory: Familiarity with PC or Mac.
May be taken 6 times for credit.
.5 hour lecture, .5 hour terminal time.
Provides Hands-on experience including formatting, editing, saving, and printing letters, memos, and other short documents, inserting text boxes and graphics, composing tables, headers and footers, and editing and merging documents. [Transferability: CSU]

LINC 63 MICROSOFT EXCEL OVERVIEW 1 Unit
Formerly: LINC 269
Advisory: Proficiency in a computer operating system (Mac or Windows), software conventions, and internet technologies. May be taken 5 times for credit.
1 hour lecture.
Microsoft Excel is a powerful spreadsheet application that can support educators in a myriad of tasks that include analyzing student performance data, tracking expenditures, budget development, meeting planning, and parent communication. [Transferability: CSU]

LINC 63A MICROSOFT EXCEL I .5 Unit
Formerly: LINC 271
Advisory: Proficiency in a computer operating system (Mac or Windows), software conventions, and internet technologies. May be taken 4 times for credit.
.5 hour lecture.
This introductory course introduces the basic ways to use the Excel software application, including the use of formulas for student and teacher projects. Creating and modifying Excel spreadsheets, databases, charts and graphs will be included. [Transferability: CSU]
LINC 63B MICROSOFT EXCEL II .5 Unit
Formerly: LINC 271S
Advisory: Proficiency in a computer operating system (Mac or Windows), software conventions, and internet technologies. May be taken 4 times for credit.
.5 hour lecture.
This is an introduction to the use of Microsoft Excel, with an emphasis on utilizing this software to meet the needs of students and educators. This course will include a comprehensive overview of the software, including features such as formulas and functions, and an introduction to more advanced features such as pivot tables and charts. Students will create and modify spreadsheets, formulas, data analysis, charts, and graphs, and learn how to create and modify formulas and functions. [Transferability: CSU]

LINC 64 MICROSOFT POWERPOINT 1 Unit
Formerly: LINC 246
Advisory: Familiarity with PC or Mac; basic internet skills. May be taken 6 times for credit.
1 hour lecture, 1 hour terminal time.
Provides students with skills necessary to create projects using Microsoft PowerPoint. Projects are standards-based and appropriate for classroom use. Students will learn to include text, sound, and animation in their PowerPoint presentation. [Transferability: CSU]

LINC 65A MICROSOFT ACCESS 1 Unit
Formerly: LINC 273
Advisory: Familiarity with PC or Mac. May be taken 2 times for credit.
1 hour lecture, 2 hours terminal time.
Introduction to Access, a relational database tool; hands-on experience. Intended for Continuing Education. [Transferability: CSU]

LINC 65B FILEMAKER PRO 1 Unit
Formerly: LINC 275
Advisory: Basic computer skills, use of a keyboard and mouse; a basic understanding of menus. May be taken 6 times for credit.
1 hour lecture, 1 hour terminal time.
Introduction to FileMaker Pro, a relational database tool; hands-on experience. Intended for Continuing Education. [Transferability: CSU]

LINC 66 INTRODUCTION TO THE INTERNET I 1 Unit
Formerly: LINC 206
Advisory: Familiarity with PC or Mac; basic internet skills. May be taken 6 times for credit.
1 hour lecture, 1 hour terminal time.
This is a comprehensive course to learn to use email and the Internet. Participants will learn how to understand the vocabulary and anatomy of email and web addresses, distinguish between the different types of email accounts, and learn appropriate netiquette, and ethical and legal issues related using the Internet in the classroom. An array of online educational resources to enhance the curriculum will be given. Participants will explore online projects, lesson plans, and resources from around the world. Netscape Communicator an d Microsoft Internet Explorer will be the tools used. The course includes: How to use the Internet from home or school, hands-on experience with E-Mail, File Transfer Protocol (FTP), and Listservs, Basics of the Browser, Bookmarks, Search Engines, and Basic Searching Strategies. It is intended for continuing education. [Transferability: CSU]

LINC 66A INTRODUCTION TO THE INTERNET II .5 Unit
Formerly: LINC 206S
Advisory: Familiarity with PC or Mac; basic internet skills. May be taken 6 times for credit.
.5 hour lecture, .5 hour terminal time.
This is a comprehensive course to learn to use email and the Internet. Participants will learn how to understand the vocabulary and anatomy of email and web addresses, distinguish between the different types of email accounts, and learn appropriate netiquette, and ethical and legal issues related using the Internet in the classroom. An array of online educational resources to enhance the curriculum will be given. Participants will explore online projects, lesson plans, and resources from around the world. Netscape Communicator an d Microsoft Internet Explorer will be the tools used. The course includes: How to use the Internet from home or school, hands-on experience with E-Mail, File Transfer Protocol (FTP), and Listservs, Basics of the Browser, Bookmarks, Search Engines, and Basic Searching Strategies. It is intended for continuing education. [Transferability: CSU]

LINC 66B INTRODUCTION TO THE INTERNET II .5 Unit
Formerly: LINC 206T
Advisory: Familiarity with PC or Mac; basic internet skills. May be taken 6 times for credit.
.5 hour lecture, .5 hour terminal time.
This is a comprehensive course to learn to use email and the Internet. Participants will learn how to understand the vocabulary and anatomy of email and web addresses, distinguish between the different types of email accounts, and learn appropriate netiquette, and ethical and legal issues related using the Internet in the classroom. An array of online educational resources to enhance the curriculum will be given. Participants will explore online projects, lesson plans, and resources from around the world. Netscape Communicator an d Microsoft Internet Explorer will be the tools used. The course includes: How to use the Internet from home or school, hands-on experience with E-Mail, File Transfer Protocol (FTP), and Listservs, Basics of the Browser, Bookmarks, Search Engines, and Basic Searching Strategies. It is intended for continuing education. [Transferability: CSU]

LINC 66C SEARCHING & RESEARCHING THE INTERNET FOR EDUCATORS 2 Units
Formerly: LINC 208
Advisory: Familiarity with PC or Mac; basic internet and email skills. May be taken 6 times for credit.
2 hours lecture.
This is an intermediate to advanced course for teachers and administrators who currently use the Internet for personal research and in their classrooms. Methods to better integrate the Internet into the curriculum will be addressed. The course emphasizes using advanced search techniques that incorporate critical thinking, essential questions, and inquiry-based learning to narrow searches, explore search engines, evaluate web sites, and understand copyright and citation documentation. Participants will create an Internet treasure hunt or WebQuest to use with students. [Transferability: CSU]

LINC 66D PODCASTING 1 Unit
Formerly: LINC 283
Advisory: Proficiency in a computer operating system (Mac or Windows), software conventions, and internet technologies. May be taken 3 times for credit.
1 hour lecture.
This class will explain, demonstrate and provide hands-on experience creating a podcast using commonly available audio software and upload it to the web (iPod not necessary). [Transferability: CSU]

LINC 66E INTRODUCTION TO BLOGS & WIKIS .5 Unit
Formerly: LINC 283S
Advisory: Proficiency in a computer operating system (Mac or Windows), software conventions, and internet technologies. May be taken 4 times for credit.
.5 hour lecture.
This introductory, hands-on class will compare the relative advantages and disadvantages of blogs and wikis. Create a blog and wiki for educational, business, or personal application. [Transferability: CSU]

LINC 70 WEB PAGE DESIGN OVERVIEW 1 Unit
Formerly: LINC 200
Advisory: Familiarity with PC or Mac; basic internet skills. May be taken 6 times for credit.
1 hour lecture.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Formerly</th>
<th>Advisories</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LINC 70A ADOBE INDESIGN I</td>
<td>1 Unit</td>
<td>LINC 231</td>
<td>Familiarity with PC or Mac; basic internet skills. May be taken 6 times for credit.</td>
<td>Provides hands-on experience using Adobe InDesign. Students will create a publication by placing text and graphics. [Transferability: CSU]</td>
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<tr>
<td>LINC 70B ADOBE INDESIGN II</td>
<td>1 Unit</td>
<td>LINC 232</td>
<td>Familiarity with PC or Mac; basic internet and email skills. May be taken 2 times for credit.</td>
<td>Design and creation of World Wide Web pages. Hands-on experience creating Web pages. Intended for Continuing Education. [Transferability: CSU]</td>
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<tr>
<td>LINC 72A ADOBE ACROBAT I</td>
<td>1 Unit</td>
<td>LINC 234</td>
<td>Familiarity with PC or Mac; any word processing software. May be taken 6 times for credit.</td>
<td>Provides hands-on experience using Adobe Acrobat. The student will learn how to publish teacher and student on the Internet, retaining their original format. [Transferability: CSU]</td>
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<tr>
<td>LINC 72B INDESIGN OVERVIEW</td>
<td>1 Unit</td>
<td>LINC 235</td>
<td>Familiarity with PC or Mac; any word processing software. May be taken 6 times for credit.</td>
<td>InDesign is an application for the creation of flyers, newsletters, yearbooks, trifolds and other desktop published items. Its features are intuitive, allowing the user to be creative. This course provides the basics of page layout using Adobe InDesign. Students will create a publication by placing text and graphics. [Transferability: CSU]</td>
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<tr>
<td>LINC 72C ADOBE INDESIGN I</td>
<td>.5 Unit</td>
<td>LINC 236</td>
<td>Familiarity with PC or Mac; any word processing software. May be taken 6 times for credit.</td>
<td>Provides hands-on experience with the basic elements and tools of Photoshop to set up files, manage documents, and perform basic image processing. Includes advanced concepts and methods of developing images and creating special effects and problem solving. [Transferability: CSU]</td>
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<tr>
<td>LINC 72D ADOBE INDESIGN II</td>
<td>.5 Unit</td>
<td>LINC 237</td>
<td>Familiarity with PC or Mac; any word processing software. May be taken 6 times for credit.</td>
<td>Provides hands-on experience with the basic elements and tools of Photoshop to set up files, manage documents, and perform basic image processing. Includes advanced concepts and methods of developing images and creating special effects and problem solving. [Transferability: CSU]</td>
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</tr>
<tr>
<td>LINC 73 ADOBE PHOTOSHOP OVERVIEW</td>
<td>1 Unit</td>
<td>LINC 238</td>
<td>Proficiency in a Mac or Windows operating system, software conventions, and internet technologies. May be taken 5 times for credit.</td>
<td>This hands-on Photoshop overview course, you will learn the introductory level tools and techniques while completing a project. Topics covered include, using the drawing tools, importing and manipulating images, and managing layers. [Transferability: CSU]</td>
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<tr>
<td>LINC 73A ADOBE PHOTOSHOP I</td>
<td>.5 Unit</td>
<td>LINC 239</td>
<td>Familiarity with PC or Mac; basic internet skills. May be taken 6 times for credit.</td>
<td>Provides hands-on experience with the basic elements and tools of Photoshop to set up files, manage documents, and perform basic image processing. Includes advanced concepts and methods of developing images and creating special effects and problem solving. [Transferability: CSU]</td>
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<tr>
<td>LINC 73B ADOBE PHOTOSHOP II</td>
<td>.5 Unit</td>
<td>LINC 240</td>
<td>Familiarity with PC or Mac; basic internet skills. May be taken 6 times for credit.</td>
<td>Provides hands-on experience with the basic elements and tools of Photoshop to set up files, manage documents, and perform basic image processing. Includes advanced concepts and methods of developing images and creating special effects and problem solving. [Transferability: CSU]</td>
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<tr>
<td>LINC 73C ADOBE PHOTOSHOP OVERVIEW</td>
<td>1 Unit</td>
<td>LINC 241</td>
<td>Proficiency in a Mac or Windows operating system, software conventions, and internet technologies. May be taken 5 times for credit.</td>
<td>In this digital imaging, production overview course, perform basic and easy edits to digital images through hands-on projects. Topics include: color and contrast adjustment, selections and layers, touch-up tools, and text. [Transferability: CSU]</td>
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<tr>
<td>LINC 73D ADOBE PHOTOSHOP ELEMENTS OVERVIEW</td>
<td>1 Unit</td>
<td>LINC 242</td>
<td>Familiarity with PC or Mac; basic internet skills. May be taken 3 times for credit.</td>
<td>Provides hands-on experience with the basic elements and tools of Photoshop to set up files, manage documents, and perform basic image processing. Includes advanced concepts and methods of developing images and creating special effects and problem solving. [Transferability: CSU]</td>
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<tr>
<td>LINC 73E ADOBE PHOTOSHOP ELEMENTS I</td>
<td>.5 Unit</td>
<td>LINC 243</td>
<td>Familiarity with PC or Mac; basic internet skills. May be taken 3 times for credit.</td>
<td>Provides hands-on experience with the basic elements and tools of Photoshop to set up files, manage documents, and perform basic image processing. Includes advanced concepts and methods of developing images and creating special effects and problem solving. [Transferability: CSU]</td>
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<tr>
<td>LINC 73F ADOBE PHOTOSHOP ELEMENTS II</td>
<td>.5 Unit</td>
<td>LINC 244</td>
<td>Familiarity with PC or Mac; basic internet skills. May be taken 3 times for credit.</td>
<td>Provides hands-on experience with the basic elements and tools of Photoshop to set up files, manage documents, and perform basic image processing. Includes advanced concepts and methods of developing images and creating special effects and problem solving. [Transferability: CSU]</td>
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</table>
LINC 76A CREATING EDUCATIONAL WEB SITES I 1 Unit
Formerly: LINC 2105
May be taken 6 times for credit.
1 hour lecture, 1 hour terminal time.
This course explores the tools that make a web site stand out and hold the viewer’s attention. Participants will be instructed on how to add graphics, QuickTime movies, and sound to web sites. Elements of design and ideas for effective web sites will be discussed. [Transferability: CSU]

LINC 76B CREATING EDUCATIONAL WEB SITES II 1 Unit
Formerly: LINC 210T
May be taken 6 times for credit.
1 hour lecture, 1 hour terminal time.
This course explores the tools that make a web site stand out and hold the viewer’s attention. Participants will be instructed on how to add graphics, QuickTime movies, and sound to web sites. Elements of design and ideas for effective web sites will be discussed. [Transferability: CSU]

LINC 76C CREATING WEB QUESTS 2 Units
Formerly: LINC 202
Advisory: Familiarity with PC or Mac; basic internet skills.
May be taken 6 times for credit.
2 hours lecture, 2 hours terminal time.
Provides a goal and focus for web searching which requires students to transform information into a new form. WebQuests are web-based, curriculum-based challenges with student resources and activities. Existing WebQuests will be explored as well as a step-by-step approach to creating one’s own. [Transferability: CSU]
LINC 81A  USING DIGITAL IMAGES I  .5 Unit  
**Formerly: LINC 257S**  
Advisory: Not open to students with credit in COIN 211A.  
May be taken 3 times for credit.  
.5 hour lecture.  
Use your digital images for fun and profit! Learn how to create hard or soft cover books, calendars, note cards and more to make great gifts or remembrances. Create collateral materials for use in projects or presentations. Easy quick and fun! [Transferability: CSU]

LINC 81B  ADOBE FIREWORKS OVERVIEW  1 Unit  
**Formerly: LINC 237**  
Advisory: Proficiency in a computer operating system (Mac or Windows), software conventions, and internet technologies.  
May be taken 5 times for credit.  
1 hour lecture.  
In this hands-on overview course, create animated Web sites with Adobe Fireworks; build interactive buttons; resize, crop, and optimize images; add design effects with filters and collage techniques. [Transferability: CSU]

LINC 81C  MACROMEDIA FIREWORKS II  1 Unit  
**Formerly: LINC 286**  
Advisory: Familiarity with Fireworks and DreamWeaver.  
May be taken 6 times for credit.  
1 hour lecture, 1 hour terminal time.  
Provides hands-on exercise with some of the more advanced elements and tools of Macromedia Fireworks, a digital photo editing software, to set up files, manage documents, and perform basic image processing. Includes intermediate and advanced concepts and methods of developing images and creating special effects and problem solving. [Transferability: CSU]

LINC 81D  ADOBE FIREWORKS II  .5 Unit  
**Formerly: LINC 81CS**  
Advisory: Proficiency in a Mac or Windows operating system, software conventions, and internet technologies.  
May be taken 4 times for credit.  
.5 hour lecture  
In this continuing course, create animated Web sites with Adobe Fireworks; edit images; build different layouts and templates; manage the site. [Transferability: CSU]

LINC 83A  ADOBE PREMIER  1 Unit  
**Formerly: LINC 236**  
Advisory: Familiarity with PC or Mac; scanning photos; using a digital still and digital video camera.  
May be taken 6 times for credit.  
1 hour lecture, 1 hour terminal time.  
Adobe Premiere provides students with skills necessary to create digital movies. Projects are standards based and appropriate for classroom use. Students will learn to include text, sound, and the ‘Ken Burns Effect’ as well as other special effects in their movies. [Transferability: CSU]

LINC 83C  IMOVIE I  1 Unit  
**Formerly: LINC 241**  
Advisory: Familiarity with Mac.  
May be taken 6 times for credit.  
1 hour lecture, 1 hour terminal time.  
Using the software application, iMovie, to produce movies on the computer with video clips captured from a video format camcorder with background audio, voice-over narrations, sound effects, transitions and titles. [Transferability: CSU]

LINC 83D  IMOVIE II  .5 Unit  
**Formerly: LINC 241T**  
Advisory: Familiarity with Mac.  
May be taken 6 times for credit.  
.5 hour lecture, .5 hour terminal time.  
Using the software application, iMovie, to produce movies on the computer with video clips captured from a video format camcorder with background audio, voice-over narrations, sound effects, transitions and titles. [Transferability: CSU]

LINC 83E  MOVIEWORKS  1 Unit  
**Formerly: LINC 244**  
Advisory: Familiarity with PC or Mac; basic internet skills.  
May be taken 6 times for credit.  
1 hour lecture, 1 hour terminal time.  
Provides students with skills necessary to create digital movies using MovieWorks. Projects are standards based and appropriate for classroom use. Students will learn to include text, sound, and animation in their movies. [Transferability: CSU]

LINC 85A  ADOBE FLASH I  .5 Unit  
**Formerly: LINC 238S**  
Advisory: Familiarity with Flash, Fireworks and DreamWeaver.  
May be taken 6 times for credit.  
1 hour lecture, 1 hour terminal time.  
Provides hands-on experience with some of the more advanced elements and tools of Adobe Flash, an animation software; for creating animations of illustrations, photos, and text. In this introductory, hands-on course, learn basic Flash drawing tools, animation basics, tweening, and export options. [Transferability: CSU]

LINC 85B  ADOBE FLASH II  .5 Unit  
**Formerly: LINC 238T**  
Advisory: LINC 85A; Familiarity with Fireworks or similar photo editing software; Dreamweaver or similar Web page authoring software.  
May be taken 4 times for credit.  
.5 hour lecture.  
Create sophisticated dynamic content and animations for Web, multimedia, and presentations. This intermediate skills course develops interactive animations of illustrations, photos, and type using Flash drawing tools, animation basics, and button scripting. [Transferability: CSU]

LINC 85C  MACROMEDIA FLASH III  1 Unit  
**Formerly: LINC 287**  
Advisory: Familiarity with Flash, Fireworks and DreamWeaver.  
May be taken 6 times for credit.  
1 hour lecture, 1 hour terminal time.  
Macromedia Flash is an animation and authoring tool for interactive multimedia applications. Create, combine, and synchronize animation, graphics, and text, with audio and video for your Web site with navigation controls animated features and long-form animations with synchronized sound. Export Flash to HTML Intended for Continuing Education. [Transferability: CSU]

LINC 90  INTERNET TECHNOLOGY  5 Units  
**Formerly: LINC 203**  
Advisory: Familiarity with PC or Mac; basic internet skills.  
May be taken 3 times for credit.  
4 hours lecture, 4 hours terminal time.  
Use the Internet to connect and communicate over the World Wide Web and e-mail, retrieve current useful information using searching tools, prepare a simple HTML Web pages, and locate Internet resources to find educational resources and information appropriate for use in the classroom. [Transferability: CSU]

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219
LINC 90A WEBINARS 1 Unit
*Formerly: LINC 290*
May be taken 6 times for credit.
1 hour lecture, 1 hour terminal time.
Webinars allow for synchronous and asynchronous instruction. This course will use CCC Confer and other online tools including digital video, PowerPoint and Internet resources to demonstrate relevant, short, and to the point practical classroom and learning applications of Webinars; [Transferability: CSU](#)

LINC 90B OPEN EDUCATION RESOURCES 1 Unit
*Formerly: LINC 215*
May be taken 6 times for credit.
1 hour lecture.
Introduction to Open Educational Resources (OER) and the use of public domain learning materials for teaching. Build educators knowledge and skills necessary to find, adapt, repurpose and create accessible OER for use in their classes. Specific topics covered include OER terminology, OER best practices and case studies, copyright and fair use issues as they pertain to OER, sources and repositories of public domain learning materials in various disciplines, technical issues regarding accessibility of public domain learning materials, and uses of Creative Commons licenses, tools and standards available to develop, organize and disseminate public domain learning materials, searching techniques for identifying public domain learning materials, professional collaboration strategies, criteria for assessing the suitability of public domain learning materials for use across disciplines, lesson plan development than incorporates use of the identified public domain learning materials; [Transferability: CSU](#)

LINC 90C ONLINE COLLABORATION TOOLS 2 Units
*Formerly: LINC 214*
Advisory: Familiarity with PC or Mac; basic internet skills.
May be taken 6 times for credit.
2 hours lecture, 2 hours terminal time.
Collaboration is a fundamental basic skill of learning and work in the 21st century. This course will explore different kinds of collaborative technologies using the Internet and how these can be integrated with curriculum and student projects to help provide students with experience in both effective communication and learning using new media, as well as providing teachers tools for planning and assessing collaborative student projects; [Transferability: CSU](#)

LINC 90D ONLINE EDUCATION RESOURCES 1 Unit
*Formerly: LINC 216*
May be taken 6 times for credit.
.5 hours lecture, .5 hours terminal time.
Provides hands on experience with handheld devices (PDAs) such as Palm, Handsprings, etc. Students will learn how to operate PDAs including date books, calendars, address books, graffiti, beaming, downloading and using available software, and other tools and functions; [Transferability: CSU](#)

LINC 90E ASSESSMENT STRATEGIES FOR LEARNING 1 Unit
*Formerly: LINC 222*
Advisory: Familiarity with PC or Mac; basic internet skills.
May be taken 6 times for credit.
1 hour lecture, 1 hour terminal time.
Provides techniques for assessing what technology can do to improve students’ higher order thinking skills. Students will learn how to use assessment to drive learning. They will learn assessment strategies for students’ multimedia projects; [Transferability: CSU](#)

LINC 90F ANALYZING AND USING WEBINARS 1 Unit
*Formerly: LINC 223*
May be taken 6 times for credit.
.5 hour lecture, .5 hour terminal time.
Provides hands on experience with handheld devices (PDAs) such as Palm, Handsprings, etc. Students will learn how to operate PDAs including date books, calendars, address books, graffiti, beaming, downloading and using available software, and other tools and functions; [Transferability: CSU](#)

LINC 90G DIRECTED STUDY IN WEBINARS 1 Unit
*Formerly: LINC 224*
May be taken 6 times for credit.
.5 hour lecture, .5 hour terminal time.
Provides hands on experience with handheld devices (PDAs) such as Palm, Handsprings, etc. Students will learn how to operate PDAs including date books, calendars, address books, graffiti, beaming, downloading and using available software, and other tools and functions; [Transferability: CSU](#)

LINC 90H ADVANCED WEBINAR STRATEGIES 1 Unit
*Formerly: LINC 225*
May be taken 6 times for credit.
1 hour lecture, .5 hour terminal time.
Provides hands on experience with handheld devices (PDAs) such as Palm, Handsprings, etc. Students will learn how to operate PDAs including date books, calendars, address books, graffiti, beaming, downloading and using available software, and other tools and functions; [Transferability: CSU](#)
LING 98B DIRECTED STUDY IN DIGITAL LEARNING II
Formerly: LINC 228T
Advisory: Proficiency with computer platforms (Mac or Windows), hardware, software conventions, and internet technologies. May be taken 4 times for credit.
.5 hour lecture.
Designed for educators seeking to be an educational technology leader, enhance their knowledge and upgrade skills. Develop content knowledge and pedagogical technology skill for effective and appropriate integration of technology into learning environments. [Transferability: CSU]

LING 98M INTRODUCTION TO BIOINFORMATICS
Formerly: LINC 265
May be taken 6 times for credit.
1 hour lecture, 1 hour terminal time.
Introduction to bioinformatics and NCBI. Hands-on tour of key bioinformatics web sites, focusing on NCBI (National Center for Biotechnology Information) and the use of bioinformatics databases, tools, and methods. Use of BLAST, multiple sequence alignment, genome databases, simple protein modeling tools, and online scientific journals. The course is built around problem centered learning, with exercises built on current real-world medical and biological problems. [Transferability: CSU]

LIBRARY SCIENCE

Language Arts
(650) 949-7608
www.foothill.edu/la/

LIBR 71 RESEARCH PAPER SEARCH STRATEGIES
1 Unit
Advisory: Familiarity with Mac or PC.
1 hour lecture.
Intended for students writing a research paper in another class. Strategies and methods to identify a research topic and then find and evaluate information in various formats to meet the identified information needed. Consideration of the ethical and legal uses of information. Interdisciplinary application of concepts, often covering multicultural topics. [Foothill GE: Lifelong Understanding; Transferability: CSU]

LINGUISTICS

Language Arts
(650) 949-7250
www.foothill.edu/la/

LING 23 MODERN ENGLISH: FUNCTION & GRAMMAR
4 Units
Prerequisite: Eligibility for ENGL 1A.
Advisory: Not open to students with credit in ENGL 23.
4 hours lecture.
Introduction to basic linguistic concepts in describing the functions and grammar of present-day English. Focus on grammatical features of standard American English, Black English, and other English varieties as they function in the diverse types of communication between Americans, as well as in global interaction. Analysis of modern English relevant for those interested in refining their English, students of ESL and foreign languages, and prospective writers and language teachers. Offered Winter quarters. [Foothill GE: Humanities; Transferability: UC/CSU]

LING 25 INTRODUCTION TO DESCRIPTIVE & HISTORICAL LINGUISTICS
4 Units
Prerequisite: Eligibility for ENGL 1A.
Advisory: Not open to students with credit in ENGL 25, 25H, or LING 25H.
4 hours lecture.
Introduction to linguistic concepts in the study of structure, pattern, meaning, and change in language, with emphasis on British and American English. Introduction to historical linguistic theory and methods as applied to investigation of origin and development of spoken and written language. Offered Fall quarters. [Foothill GE: Humanities; Transferability: UC/CSU]

LING 25H HONORS INTRODUCTION TO DESCRIPTIVE & HISTORICAL LINGUISTICS
4 Units
Prerequisite: Eligibility for ENGL 1A; Honors Institute participant.
Advisory: Not open to students with credit in ENGL 25, 25H, or LING 25.
4 hours lecture.
Introduction to linguistic concepts in the study of structure, pattern, meaning, and change in language, with emphasis on British and American English. Introduction to historical linguistic theory and methods as applied to investigation of origin and development of spoken and written language. Honors section offers rigorous preparation in linguistic studies for students intending to transfer to a four-year college or university. Two research or fieldwork projects are required. Offered Fall quarters. [Foothill GE: Humanities; Transferability: UC/CSU]

LING 26 LANGUAGE, MIND & SOCIETY
4 Units
Prerequisite: Eligibility for ENGL 1A.
Advisory: Not open to students with credit in ENGL 26.
4 hours lecture.
Introduction to methods of linguistic analysis and basic concepts in psycholinguistics and sociolinguistics. Topics include function of the brain in language acquisition and language loss by mono/bilingual children and adults; role of language in society; language variability in diverse ethnic groups of speakers and diverse social uses; education and language planning. Offered Spring quarters. [Foothill GE: Humanities; Transferability: UC/CSU]

LING 34H HONORS INSTITUTE SEMINAR IN LINGUISTICS
1 Unit
Formerly: LING 34
Prerequisite: Honors Institute participant.
Advisory: Not open to students with credit in LING 34.
1 hour lecture.
A seminar in directed readings, discussions and projects in linguistics. Specific topics to be determined by the instructor. [Transferability: CSU; UC credit may be granted after transfer and upon portfolio review.]

MATH 1A CALCULUS
5 Units
Prerequisite: Satisfactory score on the mathematics placement test or MATH 49.
Advisory: Eligibility for ENGL 1A or ESLL 26.
5 hours lecture, 1 hour laboratory.
Introduction to integral calculus including definite and indefinite integrals. Applications to curve-sketching, families of functions, and optimization. [Foothill GE: Communication & Analytical Thinking; Transferability: UC/CSU]

MATH 1B CALCULUS
5 Units
Prerequisite: MATH 1A.
Advisory: Eligibility for ENGL 1A or ESLL 26.
5 hours lecture, 1 hour laboratory.
Introduction to integral calculus including definite and indefinite integrals, the first and second Fundamental Theorems and their applications to geometry, physics, and the solution of elementary differential equations. [Foothill GE: Communication & Analytical Thinking; Transferability: UC/CSU]

MATH 1C CALCULUS
5 Units
Prerequisite: MATH 1B.
Advisory: Eligibility for ENGL 1A or ESLL 26.
5 hours lecture, 1 hour laboratory.
Introduction to functions of more than one variable, including vectors, partial differentiation, the gradient, contour diagrams and optimization. Additional topics include infinite series, convergence, Taylor and Fourier series. [Foothill GE: Communication & Analytical Thinking; Transferability: UC/CSU]

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MATH 1D  CALCUULS  5 Units  
Prerequisite: MATH 1C.  
Advisory: Eligibility for ENGL 1A or ESL 26.  
5 hours lecture, 1 hour laboratory.  
Introduction to integration of functions of more than one variable, including double, triple, flux and line integrals. Additional topics include polar, cylindrical and spherical coordinates, parameterization, vector fields, path-independence, divergence and curl. [Transferability: UC/CSU]  

MATH 2A  DIFFERENTIAL EQUATIONS  5 Units  
Prerequisite: MATH 1C.  
Advisory: Eligibility for ENGL 1A or ESL 26.  
5 hours lecture, 1 hour laboratory.  
Differential equations and selected topics of mathematical analysis. [Foothill GE: Communication & Analytical Thinking; Transferability: UC/CSU]  

MATH 2B  LINEAR ALGEBRA  5 Units  
Prerequisite: MATH 1C.  
Advisory: Eligibility for ENGL 1A or ESL 26.  
5 hours lecture, 1 hour laboratory.  
A first course in Linear Algebra, including systems of linear equations, matrices, linear transformations, determinants, abstract vector spaces, eigenvalues and eigenvectors, inner product spaces and orthogonality, and selected applications of these topics. [Foothill GE: Communication & Analytical Thinking; Transferability: UC/CSU]  

MATH 10  ELEMENTARY STATISTICS  5 Units  
Prerequisite: Satisfactory score on the mathematics placement test or MATH 105.  
Advisory: Eligibility for ENGL 1A or ESL 26.  
5 hours lecture, 1 hour laboratory.  
An introduction to modern methods of descriptive statistics, including collection and presentation of data; measures of central tendency and dispersion; probability; sampling distributions; hypothesis testing and statistical inference; linear regression and correlation; use of microcomputers for statistical calculations. Illustrations taken from the fields of business, economics, medicine, engineering, education, psychology, sociology and from culturally diverse situations. [Foothill GE: Communication & Analytical Thinking; Transferability: UC/CSU]  

MATH 11  FINITE MATHEMATICS  5 Units  
Prerequisite: Satisfactory score on the mathematics placement test or MATH 105.  
Advisory: Eligibility for ENGL 1A or ESL 26.  
5 hours lecture, 1 hour laboratory.  
Set theory, basic combinatorial analysis, introduction to probability, linear equations and inequalities, introduction to linear programming and the simplex method, introduction to matrix algebra with applications, Markov chains, game theory and mathematics of finance. [Foothill GE: Communication & Analytical Thinking; Transferability: UC/CSU]  

MATH 12  CALCULUS FOR BUSINESS & ECONOMICS  5 Units  
Prerequisite: MATH 11.  
Advisory: Eligibility for ENGL 1A or ESL 26.  
5 hours lecture, 1 hour laboratory.  
Elementary ideas of differential and integral calculus. Differentiation of multivariate functions with their applications. Applications to business and economics. [Foothill GE: Communication & Analytical Thinking; Transferability: UC/CSU]  

MATH 22  DISCRETE MATHEMATICS  5 Units  
Prerequisite: MATH 49.  
Advisory: Not open to students with credit in CIS 18; eligibility for ENGL 1A or ESL 26.  
5 hours lecture, 1 hour laboratory.  
Discrete mathematics: set theory, logic, Boolean algebra, methods of proof, mathematical induction, number theory, discrete probability, combinatorics, functions, relations, recursion, algorithm efficiencies, graphs, trees. [Foothill GE: Communication & Analytical Thinking; Transferability: UC/CSU]  

MATH 34H  HONORS INSTITUTE SEMINAR  1 Unit  
IN MATHEMATICS  
Formerly: MATH 34  
Prerequisite: Honors Institute participant.  
Advisory: Not open to students with credit in MATH 34; eligibility for ENGL 1A or ESL 26.  
1 hour lecture for each unit of credit.  
A seminar in directed readings, discussions and projects in mathematics. Specific topics to be determined by the instructor. [Transferability: CSU; UC credit may be granted after transfer and upon portfolio review.]  

MATH 36  SPECIAL PROJECTS IN MATHEMATICS  1 Unit  
MATH 36X  2 Units  
MATH 36Y  3 Units  
Advisory: Previous experience in mathematics recommended; eligibility for ENGL 1A or ESL 26.  
Any combination of MATH 36–36Y may be taken for a maximum of 6 units  
3 hours laboratory for each unit of credit.  
Advanced readings and projects in mathematics. Specific projects determined on consultation with instructor. Written reports required. Enrollment generally limited to those students enrolled in the calculus sequence. [Transferability: CSU]  

MATH 44  MATH FOR THE LIBERAL ARTS  5 Units  
Prerequisite: Satisfactory score on the mathematics placement exam or MATH 105  
Advisory: Eligibility for ENGL 1A or ESL 26.  
5 hours lecture, 1 hour laboratory.  
A survey of mathematical models and other tools to introduce the nonspecialist to the methods of quantitative reasoning. Problem solving by Polya’s method with analytic, numeric, graphical, and verbal investigation. Selecting, constructing, and using mathematical models. Interpreting quantitative results in qualitative context. Emphasis on deductive reasoning and formal logic; algebraic, exponential, logarithmic, and trigonometric models; probability and the normal distribution; data analysis; and selected topics from discrete math, finite math, and statistics. [Foothill GE: Communication & Analytical Thinking; Transferability: CSU]  

MATH 49  PRECALCULUS  5 Units  
Prerequisite: Satisfactory score on the mathematics placement test or MATH 51.  
Advisory: Eligibility for ENGL 1A or ESL 26.  
5 hours lecture, 1 hour laboratory.  
An intensive study of linear, quadratic, polynomial, rational, logarithmic, exponential, and other functions and their related applications. Additional topics include functional notation, transformation of functions, families of functions, and inverse functions. [Foothill GE: Communication & Analytical Thinking; Transferability: UC/CSU]  

MATH 51  TRIGONOMETRY  5 Units  
Prerequisite: Satisfactory score on the mathematics placement test or MATH 105.  
Advisory: Eligibility for ENGL 1A or ESL 26.  
5 hours lecture, 1 hour laboratory.  
The theory of trigonometric functions and the applications of trigonometry. Topics include: radian measure and circular functions, graphs, identities, inverse trigonometric functions, trigonometric equations, vectors, and complex numbers. [Foothill GE: Communication & Analytical Thinking; Transferability: CSU]  

MATH 100  OPEN COMPUTER LABORATORY  .5 Unit  
MATH 100X  1 Unit  
MATH 100Y  2 Units  
Advisory: Pass/No Pass.  
Any combination of MATH 100–100Y may be taken 6 times for credit.  
Individual study and/or guidance provided for students who desire or require additional assistance in any of the mathematics courses.
MATH 105 INTERMEDIATE ALGEBRA 5 Units
Prerequisite: Satisfactory score on the mathematics placement test or MATH 220.
5 hours lecture, 1 hour laboratory.
Quadratic, polynomial, rational, radical, exponential and logarithmic functions and expressions with an emphasis on graphing and applications.

MATH 220 ELEMENTARY ALGEBRA 4 Units
Formerly: MATH 101
Non-degree applicable basic skills course.
Prerequisite: Satisfactory score on the mathematics placement test; MATH 200, 230, 230J, 234, or 238.
Corequisite: MATH 221.
5 hours lecture, 1 hour laboratory.
Introduction to addition, subtraction, multiplication and division of whole numbers, fractions, decimals and signed numbers. Development of math specific study skills and problem solving techniques.

MATH 221 ACTIVITIES FOR MASTERY OF BEGINNING ALGEBRA CONCEPTS 1 Unit
Non-degree applicable basic skills course.
Corequisite: MATH 220.
2 hours lecture.
Activities to support mastery of beginning Algebra concepts. Course is designed to allow students concurrently enrolled in MATH 220 to discover, explore and practice algebraic rules and concepts in order to achieve mastery.

MATH 224 ELEMENTARY ALGEBRA: SUMMER EDITION 5 Units
Formerly: MATH 101
Non-degree applicable basic skills course.
Prerequisite: Satisfactory score on the mathematics placement test; MATH 200, 230, 230J, 234, or 238.
Advisory: Not open to students with credit in MATH 101 or 224.
5 hours lecture, 1 hour laboratory.
Linear equations, linear inequalities, graphs, linear systems, operations on quadratics, factoring, and proportional reasoning.

MATH 230 PREPARING FOR ALGEBRA 5 Units
Non-degree applicable basic skills course.
Prerequisite: Satisfactory score on the mathematics placement test or successful completion of MATH 300.
Advisory: Not open to students with credit in MATH 200, 230, 230J, 234, or 238.
Corequisite: MATH 231.
8 hours lecture, 1 hour laboratory.
Addition, subtraction, multiplication and division of whole numbers, fractions, decimals and signed numbers. Introduction to algebraic concepts including solving first-degree equations and evaluating and simplifying expressions. Development and applications of ratios, proportions, percents, geometric concepts and basic algebra.

MATH 230J PREPARING FOR ALGEBRA 3 Units
Non-degree applicable basic skills course.
Prerequisite: Completion of 7 or more modules of MATH 230.
3 hours lecture, 1 hour laboratory.
Development and applications of percents and geometric concepts. Review of algebraic concepts including solving first-degree equations and evaluating and simplifying expressions, and applications of ratios and proportions.

MATH 230X ARITHMETIC PREPARATION 1 Unit
Non-degree applicable basic skills course.
1 hour lecture.
Introduction to addition, subtraction, multiplication and division of whole numbers in preparation for basic skills mathematics course.

MATH 231 MATH-SPECIFIC STUDY SKILLS 2 Units
Non-degree applicable basic skills course.
Advisory: Pass/No Pass.
Corequisite: MATH 230 or 235.
May be taken 6 times for credit.
2 hours lecture.
Individualized study and guidance to support students enrolled in MATH 230. Development of math specific study skills and problem solving techniques.

MATH 234 PREPARING FOR ALGEBRA: SUMMER EDITION 5 Units
Non-degree applicable basic skills course.
Prerequisite: Students must have been enrolled in MATH 230 the preceding Fall, Winter or Spring quarter; MATH 235.
Advisory: Pass/No Pass; not open to students with credit in MATH 200.
5 hours lecture, 1 hour laboratory.
Addition, subtraction, multiplication and division of whole numbers, fractions, decimals and signed numbers. Introduction to algebraic concepts including solving first-degree equations and evaluating and simplifying expressions. Development and applications of ratios, proportions, percents, geometric concepts and basic algebra. This course is a continuation of MATH 230.

MATH 235 ALTERNATE CREDIT ARITHMETIC & MATHEMATICAL DEVELOPMENT 5 Units
Non-degree applicable basic skills course.
Corequisite: MATH 234.
May be taken 4 times for credit.
8 hours lecture, 1 hour laboratory.
Course is designed to allow students enrolled in Math 230 and Math 238 to receive credit for mastery of some but not all of the outcomes of MATH 230 and Math 238. Students are required to attend the Math 230 course, turn in all work, and participate in the other tasks of the class.

MATH 236 ALTERNATE CREDIT ARITHMETIC & MATHEMATICAL DEVELOPMENT: SUMMER EDITION 5 Units
Non-degree applicable basic skills course.
May be taken 4 times for credit.
5 hours lecture, 1 hour laboratory.
Course is designed to allow students enrolled in MATH 234 to receive credit for mastery of some but not all of the outcomes of MATH 234. Students are required to attend the MATH 234 course, turn in all work, and participate in the other tasks of the class.

MATH 238 PREPARING FOR ALGEBRA 5 Units
Non-degree applicable basic skills course.
Prerequisite: Satisfactory score on the mathematics placement test or successful completion of MATH 300.
Advisory: Pass/No Pass; not open to students with credit in MATH 200.
8 hours lecture.
Addition, subtraction, multiplication and division of whole numbers, fractions, decimals and signed numbers. Introduction to algebraic concepts including solving first-degree equations and evaluating and simplifying expressions. Development and applications of ratios, proportions, percents, geometric concepts and basic algebra.

MATH 300 PREPARATION FOR ARITHMETIC 5 Units
Non-degree applicable basic skills course.
5 hours lecture.
Introduction to addition, subtraction, multiplication and division of whole numbers in preparation for basic skills mathematics course.

MATH 360 TECHNOLOGY PREPARATION FOR MATHEMATICS 1 Unit
Non-degree applicable credit course.
1 hour lecture.
An introduction to the TI graphing calculator, as it applies to mathematics courses offered at Foothill College, including syntax, tables, graphing, solving equations, numerical differentiation and integration.
MUS 1 INTRODUCTION TO MUSIC 4 Units
4 hours lecture, 1 hour laboratory.
A study of Western music and its place in civilization. Selected listening and readings from the masterpieces of music of Europe and the Western Hemisphere with an emphasis on methods of comprehension, listening techniques, the elements of music, primary musical forms, and a wide range of concert repertoire. A variety of media consisting of slides, videos, recordings, and lecture will be used. Live performance used when possible. [Foothill GE: Humanities; Transferability: UC/CSU]

MUS 2A GREAT COMPOSERS & MUSIC MASTERPIECES OF WESTERN CIVILIZATION 4 Units
4 hours lecture, 1 hour laboratory.
Introduction to the great composers and music masterpieces of Western culture. Includes composer biographies with emphasis on how composers synthesize or transform the aesthetic ideals of their time. Examines how composers’ music reflects their own lives as well as mirrors contemporary social, political, and religious events. Historical periods include the Ancient World and the Medieval, Renaissance, and Baroque eras. Composers include Josquin, Lassus, Palestrina, Monteverdi, Purcell, Vivaldi, Handel and Bach. [Foothill GE: Humanities; Transferability: UC/CSU]

MUS 2B GREAT COMPOSERS & MUSIC MASTERPIECES OF WESTERN CIVILIZATION 4 Units
4 hours lecture, 1 hour laboratory.
Introduction to the great composers and music masterpieces of Western culture. Includes composer biographies with emphasis on how composers synthesize or transform the aesthetic ideals of their time. Examines how composers’ music reflects their own lives as well as mirrors contemporary social, political, and religious events. Historical periods include the Classical period up through early Romanticism. Composers include Gluck, Haydn, Mozart, Beethoven, Schubert and Weber. [Foothill GE: Humanities; Transferability: UC/CSU]

MUS 2C GREAT COMPOSERS & MUSIC MASTERPIECES OF WESTERN CIVILIZATION 4 Units
4 hours lecture, 1 hour laboratory.
Introduction to the great composers and music masterpieces of Western culture. Includes composer biographies with emphasis on how composers synthesize or transform the aesthetic ideals of their time. Examines how composers’ music reflects their own lives as well as mirrors contemporary social, political, and religious events. Historical periods include mid-19th Century Romanticism through the present. Composers include Schumann, Chopin, Mendelssohn, Brahms, Berlioz, Liszt, Tchaikovsky, Mussorgsky, Strauss, Verdi, Wagner, Bizet, Debussy, Ravel, Ives, Cowell, Bartok, Berg, Webern, Stravinsky, Copland, Varese, Babbitt, Cage, Crumb, Ligeti, Penderecki, Reich, Glass and Adams. [Foothill GE: Humanities; Transferability: UC/CSU]

MUS 2D WORLD MUSIC: ROOTS TO CONTEMPORARY GLOBAL FUSION 4 Units
4 hours lecture, 1 hour laboratory.
A survey of world music styles from their roots in the ethnic traditions of a specific culture through their evolution into new forms that retain vitality and relevance in contemporary society. Traces the elements that make each style distinctive from a purely musical perspective as well as the social, historical, and cultural context that shaped each style’s development. Styles include salsa, reggae, ska, Celtic, Fado, klezmer, South African Township, High Life, sou kous, Bollywood (filmi), Chutney, Cajun, zydeco, and Hawaiian Slack Key Guitar. [Transferability: UC/CSU]

MUS 3A BEGINNING MUSIC THEORY, LITERATURE & COMPOSITION 5 Units
Advisory: MUS 12A strongly recommended.
4 hours lecture, 2 hours lecture-laboratory.
Introduction to the fundamentals of music and their application to composition and music literature. Notation, scales, intervals, triads, and their use in basic composition. [Foothill GE: Humanities; Transferability: UC/CSU]

MUS 3B INTERMEDIATE MUSIC THEORY, LITERATURE & COMPOSITION 5 Units
Advisory: MUS 3A proficiency or equivalent.
4 hours lecture, 2 hours lecture-laboratory.
Continuation of common practice procedures in music and their application to composition and music literature. Seventh chords, cadential chordal structures, secondary dominants and leading tone chords, modulation, binary and ternary form, sonata-allegro form, and variation technique. [Foothill GE: Humanities; Transferability: UC/CSU]

MUS 3C ADVANCED MUSIC THEORY, LITERATURE & COMPOSITION 5 Units
Advisory: MUS 3B proficiency or equivalent.
4 hours lecture, 2 hours lecture-laboratory.
Continuation of late chromatic harmony and 20th Century compositional practice and theory. Application to composition and music literature. Impressionism, atonality, set theory, twelve-tone technique, graphic notation, and minimalism. [Foothill GE: Humanities; Transferability: UC/CSU]

MUS 7 CONTEMPORARY MUSICAL STYLES: ROCK, POP & JAZZ 4 Units
4 hours lecture, 1 hour laboratory.
Contemporary Musical Styles is a research and listening based survey course that begins with the blues and continues with an introduction to contemporary jazz, popular songs, and rock music. It is a social history of rock and roll. It includes the study of prominent performers, composers, compositions, and styles associated with the evolution and stature of current musical idioms. [Foothill GE: Humanities; Transferability: UC/CSU]

MUS 7D CONTEMPORARY MUSICAL STYLES: THE BEATLES IN THE CULTURE OF POPULAR MUSIC 4 Units
4 hours lecture, 1 hour laboratory.
Continuation of jazz, popular, and rock music with a focus on the Beatles. Includes prominent albums and songs associated with the band’s evolution and stature, and their synthesis of a wide variety of popular and non popular musical styles. Examines the influences of pop music on the Beatles’ early style as well as the group’s own influence on music and pop culture in general. A variety of media consisting of videos, recordings, lecture, and live performance will be used. [Foothill GE: Humanities; Transferability: UC/CSU]

MUS 7E HISTORY OF THE BLUES 4 Units
4 hours lecture, 1 hour laboratory.
The History of the Blues is a research based course that examines the geographical regions, social influences, technological innovations, and musical styles within the blues form. It is about the dissemination and popularization of the blues, the basic song form of African American origin that is marked by flattened “blue” notes. The course will cover the development of the blues in the United States throughout the 20th century. Emphasis will be on the creation of the 12 bar blues, its evolution into jazz, rhythm and blues, rock and roll, and its impact on social issues. [Foothill GE: Humanities; Transferability: UC/CSU]

MUS 8 MUSIC OF MULTICULTURAL AMERICA 4 Units
Advisory: Not open to students with credit in MUS 8H.
4 hours lecture, 1 hour laboratory.
A comparative and integrative study of the multicultural musical styles of the United States. Includes the musics of Native Americans, European Americans, African Americans, Chicano/Latino Americans, and Asian Americans, from their historical roots to the present. Includes a wide variety of musical styles such as Folk, Spirituals, Gospel, Soul, Blues, Jazz,
Rap, Cajun, Zydeco, Salsa and Tejano. Analysis of musical traditions from a technical and a cultural perspective; and sequential development of listening and descriptive skills through different media such as films, recordings and computer-assisted instruction. [Foothill GE: United States Cultures & Communities, Human; Transferability: UC/CSU]

MUS 8H HONORS MUSIC OF MULTICULTURAL AMERICA 4 Units

Prerequisite: Honors Institute participate.
Advisory: Not open to students with credit in MUS 8.
4 hours lecture, 1 hour laboratory.
A comparative and integrative study of the multicultural musical styles of the United States. Includes the musicus of Native Americans, European Americans, African Americans, Chicano/Latino Americans, and Asian Americans, from their historical roots to the present. Includes a wide variety of musical styles such as Folk, Spirituals, Gospel, Soul, Blues, Jazz, Rap, Cajun, Zysdec, Salsa, and Tejano. Analysis of musical traditions from a technical and a cultural perspective; and sequential development of listening and descriptive skills through a variety of media including films, recordings, and computer-assisted instruction. The honors course offers an enriched and challenging experience for the more talented student, including deeper content, more rigorous grading, and more demanding and creative assignments requiring application of higher-level thinking, writing, and communication skills. [Foothill GE: United States Cultures & Communities, Human; Transferability: UC/CSU]

MUS 10 MUSIC FUNDAMENTALS 4 Units

4 hours lecture, 1 hour laboratory.
Music Fundamentals is a beginning theory course where the basic elements of musicianship and harmony are explored through lecture, listening, and written assignments. Rudiments of music like pitch, rhythm, harmony, style, and form will be examined as rock and roll is analyzed through classical music theory. [Foothill GE: Humanities; Transferability: UC/CSU]

MUS 11A JAZZ & SWING 4 Units

Formerly: MUS 64A
4 hours lecture, 1 hour laboratory.
History and analysis of jazz styles and trends from the development of Ragtime to 1969. An introduction to the instruments, performers, composers, compositions and recordings that defined jazz before the introduction of rock as the primary commercial music style in the US. Presentation of jazz and swing recordings, videos and print resources. Major artists include Louis Armstrong, Duke Ellington, Benny Goodman, Glenn Miller, Lionel Hampton, Count Basie, Charlie Parker, dizzy Gillespie, Miles Davis, Sonny Rollins, Charles Mingus and John Coltrane. Style periods include Early ('Dixieland'), Big Band, Jump, Swing, Bebop, Hard Bop, Cool, Modal, and Avant-Garde Jazz. [Foothill GE: Humanities; Transferability: UC/CSU]

MUS 11B FUNK, FUSION & HIP-HOP 4 Units

Formerly: MUS 64B
4 hours lecture, 1 hour laboratory.
History and analysis of funk, fusion and Hip Hop styles from 1969 to the present. An introduction to the instruments, performers, composers, compositions and recordings that defined/funk, fusion & Hip Hop from the collapse of traditional jazz and the introduction of funk and jazz fusion to the present. Presentation of recordings, videos and print resources. Major artists include Miles Davis, Herbie Hancock, James Brown, Sly Stone, Weather Report, Wayne Shorter, George Clinton and P-Funk, Jaco Pastorious, Pat Metheny, Grandmaster Flash, Africa Bambataaa, Chuck D. and Dr. Dre. Style periods include Early Jazz Fusion, Early Funk, East Bay Funk, Groove and Smooth Jazz, Modern Fusion, Early Hip Hop and Commercial Rap. [Foothill GE: Humanities; Transferability: UC/CSU]

MUS 11C SALSA & LATIN JAZZ 4 Units

Formerly: MUS 64C
4 hours lecture, 1 hour laboratory.
History and analysis of Afro-Caribbean musical styles that have developed into modern Salsa and Latin Jazz. Presentation of recordings, videos and print resources. Major artists include Tito Puente, Machito, Perez Prado, Eddie Palmieri, Giovanni Hidalgo, Israel ‘Cachao’ Lopez, Mario Bauza, Frankie Ruiz, Celia Cruz, Luis Enrique, Paquito D’Rivera, Poncho Sanchez, Chusco Valdez, and others. Styles include Danzon, Son, Mambo, Rhumba, Guaguancó, Guaracha, Son Montuno, Cha Cha, Guajira, Cumbia, Plena, Bomba, Merengue and others. [Foothill GE: Non-GE, Human; Transferability: UC/CSU]

MUS 12A BEGINNING CLASS PIANO 2 Units

Advisory: Concurrent enrollment in MUS 10 and 12AL.
2 hours lecture, 1 hour laboratory.
Group instruction in piano for those with no previous training. Emphasis is on finger technique, note reading, elementary chording, and performance of simple piano literature. For music majors as well as the general student. [Transferability: UC/CSU]

MUS 12AL CLASS PIANO LABORATORY I 1 Unit

Advisory: Pass/No Pass.
May be taken 6 times for credit.
3 hours laboratory.
Supervised practice of piano repertoire and technical material assigned in MUS 12A. [Transferability: UC/CSU]

MUS 12B INTERMEDIATE CLASS PIANO 2 Units

Advisory: MUS 12A or equivalent skills; concurrent enrollment in MUS 12BL.
May be taken 6 times for credit.
2 hours lecture, 1 hour laboratory.
Continuation of MUS 12A with increased emphasis on good tone production, independence of hands, development of eye-hand coordination, simple harmonization and transposition, and building repertoire. [Transferability: UC/CSU]

MUS 12BL CLASS PIANO LABORATORY II 1 Unit

Advisory: Pass/No Pass.
May be taken 6 times for credit.
3 hours laboratory.
Supervised practice of piano repertoire and technical material assigned in MUS 12B. [Transferability: UC/CSU]

MUS 12C ADVANCED CLASS PIANO 2 Units

Advisory: MUS 12B or equivalent skills; concurrent enrollment in MUS 12CL.
May be taken 6 times for credit.
2 hours lecture, 1 hour laboratory.
Continuation of MUS 12B with greater emphasis on building a repertoire, varied styles of performance, and ensemble playing. [Transferability: UC/CSU]

MUS 12CL CLASS PIANO LABORATORY III 1 Unit

Advisory: Pass/No Pass.
May be taken 6 times for credit.
3 hours laboratory.
Supervised practice of piano repertoire and technical material assigned in MUS 12C. [Transferability: UC/CSU]

MUS 12D PIANO REPERTOIRE 2 Units

Prerequisite: MUS 12C or equivalent.
Advisory: Concurrent enrollment in MUS 12DL.
May be taken 6 times for credit.
2 hours lecture, 1 hour laboratory.
The study and performance of selected piano literature from the 18" to 20" centuries. Emphasis will be on interpretation, practice techniques, and expansion of repertoire. [Transferability: UC/CSU]

MUS 12DL PIANO REPERTOIRE LABORATORY 1 Unit

Advisory: Pass/No Pass.
May be taken 6 times for credit.
3 hours laboratory.
Supervised practice of piano repertoire and technical material assigned in MUS 12D. [Transferability: UC/CSU]
MUS 12E  PIANO MASTER CLASS  2 Units
Advisory: MUS 12C or equivalent skills.
May be taken 6 times for credit.
2 hours lecture, 1 hour laboratory.
The study and performance of selected piano literature from the 18th and 20th centuries. Emphasis will be on performance, interpretation, practice techniques, and expansion of repertoire. [Transferability: UC/CSU]

MUS 13A  CLASS VOICE I  1 Unit
Advisory: Concurrent enrollment in MUS 12A and 13AL.
May be taken 4 times for credit.
2 hours lecture-laboratory, 1 hour laboratory.
Group instruction in fundamental techniques of singing. Opportunity to develop positive concepts of tone production, diction, stage presence, and music reading needed by the singer. [Transferability: UC/CSU]

MUS 13AL  CLASS VOICE LABORATORY  1 Unit
Advisory: Pass/No Pass.
May be taken 4 times for credit.
3 hours laboratory.
Supervised practice of vocal repertoire and technical material assigned in MUS 13A. [Transferability: UC/CSU]

MUS 13B  CLASS VOICE II  1 Unit
Prerequisite: MUS 13A.
Corequisite: MUS 13BL.
May be taken 4 times for credit.
2 hours lecture-laboratory, 1 hour laboratory.
Continuation of MUS 13A with additional emphasis on the development of the voice as a solo instrument. [Transferability: UC/CSU]

MUS 13BL  CLASS VOICE LABORATORY  1 Unit
Advisory: Pass/No Pass.
May be taken 4 times for credit.
3 hours laboratory.
Supervised practice of vocal repertoire and technical material assigned in MUS 13B. [Transferability: UC/CSU]

MUS 13C  CLASS VOICE III  1 Unit
Prerequisite: MUS 13A and 13B.
Corequisite: MUS 13CL.
May be taken 4 times for credit.
2 hours lecture-laboratory, 1 hour laboratory.
Continuation of MUS 13A and 13B, with additional emphasis on musical phrasing, artistic interpretation, and foreign language usage. [Transferability: UC/CSU]

MUS 13CL  CLASS VOICE LABORATORY  1 Unit
Advisory: Pass/No Pass.
May be taken 4 times for credit.
3 hours laboratory.
Supervised practice of vocal repertoire and technical material assigned in MUS 13C. [Transferability: UC/CSU]

MUS 14A  BEGINNING CLASSICAL GUITAR  2 Units
May be taken 6 times for credit.
2 hours lecture, 1 hour laboratory.
A guitar fundamentals course that places emphasis on reading standard notation in the first position. Techniques such as rest stroke, free stroke, and correct left hand position are covered. Fundamental exercises and pieces will be played by the student in class as the instructor provides accompaniment. Includes an overview of the literature and the major performers of the classical guitar. No public performances are required. [Transferability: UC/CSU]

MUS 14B  INTERMEDIATE CLASSICAL GUITAR  2 Units
Advisory: MUS 14A
May be taken 6 times for credit.
2 hours lecture, 1 hour laboratory.
Continuation of MUS 14A. Covers more advanced techniques for the right and left hands. Includes reading standard notation up to the 5th position. Increased emphasis is placed on solo guitar literature in addition to ensemble literature. No public performances are required. [Transferability: UC/CSU]

MUS 14C  ADVANCED CLASSICAL GUITAR  2 Units
Advisory: MUS 14B.
May be taken 6 times for credit.
2 hours lecture, 1 hour laboratory.
Continuation of MUS 14B. Covers more advanced techniques for the right and left hands. Includes reading standard notation up to the 9th position. Includes more complex solo ensemble literature. Additional class time is spent with lectures, demonstrations and performances. No public performances are required. [Transferability: UC/CSU]

MUS 15A  BEGINNING FOLK GUITAR  2 Units
May be taken 6 times for credit.
2 hours lecture, 1 hour laboratory.
A performance based course in beginning guitar (nylon, steel, or electric guitar) with a concentration on folk music. Traditional and popular songs will be used to demonstrate the development of right and left hand techniques. Standard music notation, tablature, and chord symbols will be presented and students can choose instrumental or popular vocal selections to play. [Transferability: UC/CSU]

MUS 15B  INTERMEDIATE FOLK GUITAR  2 Units
Prerequisite: MUS 15A or equivalent.
May be taken 6 times for credit.
2 hours lecture, 1 hour laboratory.
Development of traditional finger-picking style playing and picking techniques. Solo and ensemble performance on an intermediate level. Emphasis on reading traditional notation, chord symbols and tablature. [Transferability: UC/CSU]

MUS 15C  ADVANCED FOLK GUITAR  2 Units
Prerequisite: MUS 15A and 15B or equivalent.
May be taken 6 times for credit.
2 hours lecture, 1 hour laboratory.
Further instruction in the playing of folk guitar with an emphasis on finger-picking, barre chords, and altered tunings. Sight reading in tablature, chord symbols, and standard notation. Instrumental Blues and blues scales. [Transferability: UC/CSU]

MUS 18  MUSIC PUBLISHING FOR SONGWRITERS  3.5 Units
Formerly: MUS 59
May be taken 6 times for credit.
2 hour lecture, 1 hour lecture-laboratory, 3 hours laboratory.
This course prepares the student to navigate the music publishing business by eliminating the legalese and explaining the business in everyday language. Class includes writing original songs for review. Active listening and constructive critiquing of original student compositions. [Transferability: UC/CSU]

MUS 27  SYMPHONY & CONCERTO  4 Units
Advisory: MUS 1.
4 hours lecture.
Development of the symphony and concerto from the late 16th Century to the present. Emphasis on musical elements (compositional technique, performance practice and musical style) and on the forms’ reflection of the social, religious, political and aesthetic values of each time period. Special focus on works currently being performed by local orchestras. [Transferability: UC/CSU]
MUS 34H HONORS INSTITUTE SEMINAR IN MUSIC 1 Unit
Formerly: MUS 34
Prerequisite: Honors Institute participant.
Advisory: Not open to students with credit in MUS 34.
1 hour lecture.
A seminar in directed readings, discussions and projects in music. [Transferability: CSU; UC credit may be granted after transfer and upon portfolio review.]

MUS 35 SPECIAL PROJECTS IN MUSIC 2 Units
May be taken 6 times for credit.
6 hours laboratory.
A laboratory course involving an approved student project in music such as theory, history and literature, and applied music. Performances or music productions for community musical events may be planned and executed in this class. [Transferability: CSU]

MUS 41 LIVE MUSIC PERFORMANCE WORKSHOP 2 Units
May be taken 6 times for credit.
1 hour lecture, 3 hours laboratory.
A seminar-style course provides a forum for performing and presenting music and multimedia work, receiving constructive feedback, and encountering a broad diversity of styles in the work of others. All music performance practices are welcome, including electronic and visual media that integrate music. A wide range of musical styles will be explored including Folk, Reggae, Jazz, Blues, Electronic, and Classical. Students may use traditional acoustic, electric, and software based virtual instruments. In addition to standard repertoire, the course provides an opportunity for performance of original compositions. Students will gain music performing experience and also learn the technical side of sound reinforcements systems, concert promotion and stage management. The culmination of the student's work for the quarter will be participation in a live music concert. [Transferability: CSU]

MUS 50A MUSIC BUSINESS 4 Units
4 hours lecture, 2 hours laboratory.
Study of legal and business aspects of the music industry. Emphasis on publishing, licensing, and promotion. Copyright law, interaction between songwriters and music publishers, record companies, distributors and the rules that govern them. How music is licensed, service marks, trademarks and patents. The role of lawyers, agents, personal managers, producers and promoters. Licensing and copyright of intellectual properties in the growing multimedia industry and the internet. Synchronization of music in film, video and television. Career development and how major independent labels market and distribute media. [Transferability: CSU]

MUS 50B ENTERTAINMENT LAW & NEW MEDIA 4 Units
4 hours lecture, 2 hours laboratory.
In-depth study and discussion of entertainment law as it applies to the emerging new media market and the music industry. Internet sales and distribution for new media, file sharing, licensing for the web, and digital copyright considerations. Promotional packages, web site development, delivery systems, career promotion strategies, contracts and touring. In-depth analysis of contracts and regulations/potential of starting an independent media production company, record label, or online retail site. Sampling licenses/international copyright law and publishing. [Transferability: CSU]

MUS 50C CAREERS IN MUSIC 4 Units
Formerly: MUS 65
May be taken 3 times for credit.
2 hours lecture, 2 hours lecture-laboratory, 3 hours laboratory.
An overview of the music industry and its career opportunities. Areas of study include studio management and engineering, music merchandising on the local and national levels, artist promotion, concert promotion, concert management, music contracting, graphic support in music recording, the role of the agent/personal manager, technical support in electronic music, technical support in traditional music, video and film production and editing, instrument maintenance and repair, and music retailing. Guest lectures from local industry professionals, field trips to studios, production facilities and retail facilities. [Transferability: CSU]

MUS 56 COMPOSING & ARRANGING WITH SIBELIUS 4 Units
May be taken 3 times for credit.
2 hours lecture, 2 hours lecture-laboratory, 3 hours laboratory.
Beginning composing and arranging with Sibelius® notation software. Integrate Sibelius with Pro Tools® and Reason®. Learn to write basic lead sheets with lyrics using either notation or guitar tab, and small group arrangements all the way to large orchestral scores in any musical style. This course can be taken concurrently with MUS 3, 10, 58 or 59 and is highly recommended for anyone considering a career in music, or the songwriter who wants to publish his/her music. Prior musical training is not required, and there are no stylistic restrictions. [Transferability: UC/CSU]

MUS 58A SONGWRITER’S WORKSHOP I 3.5 Units
May be taken 6 times for credit.
2 hours lecture, 1 hour lecture-laboratory, 3 hours laboratory.
Workshop course for songwriters that focuses on contemporary songwriting styles and techniques. Over the course of the class different songwriting methods, components and structures are presented. Students are assigned songwriting projects. Course includes analytical listening and discussion of various songwriting styles. Class is appropriate for all levels of songwriting competency [Transferability: CSU]

MUS 58B SONGWRITER’S WORKSHOP II 3.5 Units
May be taken 6 times for credit.
2 hours lecture, 1 hour lecture-laboratory, 3 hours laboratory.
Continuation of MUS 58A. Workshop course for songwriters that focuses on contemporary songwriting styles and techniques. Over the course of the class different songwriting methods, components and structures are presented. Students are assigned songwriting projects. Course includes analytical listening and discussion of various songwriting styles. Class is appropriate for all levels of songwriting competency [Transferability: CSU]

MUS 58C SONGWRITER’S WORKSHOP III 4 Units
Prerequisite: MUS 58A, 58B or the equivalent.
May be taken 6 times for credit.
Continuation of MUS 58A and 58B. Workshop course for songwriters that focuses on contemporary songwriters such as Dave Matthews, Kurt Cobain, Sarah McLachlan, Joni Mitchell, Stevie Wonder, John Mayer, James Taylor, etc. Each week a different songwriting technique is presented, along with student performances and songwriting related assignments. In class listening and discussion of various songwriting styles along with guest speakers, songwriters and industry representatives. [Transferability: CSU]

MUS 60A PRODUCING IN THE HOME STUDIO I 4 Units
May be taken 3 times for credit.
4 hours lecture, 2 hours laboratory.
Design, set up and operation of an audio/video recording studio in a small environment. Space considerations, electrical requirements and acoustic treatment options. Computer requirements including processor speed, memory requirements, data storage devices and monitor selection/placement. MIDI keyboard types and compatibility, mixer selection and setup, cable selection and care, microphone design, and USB/firewire interface options. Software programs and compatibility issues. How to produce recordings from start to finish in a home studio. [Transferability: CSU]

MUS 60B PRODUCING IN THE HOME STUDIO II 4 Units
May be taken 3 times for credit.
4 hours lecture, 2 hours laboratory.
In-depth operation of an audio/video recording studio in a small environment. Microphone selection and placement, creative sound treatments in non-traditional environments, and application of plug-in effects. Use of auxiliary tracks and busses. Mixing and mastering in various digital formats. [Transferability: CSU]

All courses on this page are Title 5 degree applicable credit courses unless otherwise noted.
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MUS 62  SOUND REINFORCEMENT & LIVE RECORDING  4 Units
May be taken 3 times for credit.
2 hours lecture, 2 hours lecture-laboratory, 3 hours laboratory.
Setup and operation of live sound reinforcement systems. Basic design and
operation of analog mixing boards. Microphone type, design, construction and selection. Monitor systems and their application with musical
groups and performers. Practice with live musicians in practice and performance settings. [Transferability: CSU]

MUS 66A  INTRODUCTION TO DIGITAL AUDIO: PRO TOOLS  4 Units
May be taken 3 times for credit.
2 hours lecture, 2 hours lecture-laboratory, 3 hours laboratory.
Introduction to creating music with computers, keyboards and audio samples (beats) using Pro Tools. Basic principles and use of MIDI
sequencing/audio software. Songwriting, musical composition, and the basic elements of music (pitch, rhythm, harmony, style and form) as they relate to contemporary music. Basic music production using Pro Tools. All styles are included, and prior musical training is not required. [Transferability: CSU]

MUS 66B  INTRODUCTION TO DIGITAL AUDIO: REASON & PRO TOOLS  4 Units
May be taken 3 times for credit.
2 hours lecture, 2 hours lecture-laboratory, 3 hours laboratory.
Creating and editing digital audio with Pro Tools and Reason. Songwriting, musical composition, and the basic elements of music (pitch, rhythm, harmony, style and form) as they relate to contemporary music. Introduction to using Reason both as a stand-alone digital audio workstation as a ReWire application within the Pro Tools production environment. [Transferability: CSU]

MUS 66C  INTRODUCTION TO DIGITAL AUDIO: LIVE, REASON & PRO TOOLS  4 Units
May be taken 3 times for credit.
2 hours lecture, 2 hours lecture-laboratory, 3 hours laboratory.
Creating and editing digital audio with Pro Tools, Reason, and Ableton Live. Using Live as a stand-alone digital audio workstation and performance instrument. Pro Tools RTAS and Audio Suite plug-in effects and how they are used in the production of complete musical arrangements in digital music. Songwriting, musical composition, and the basic elements of music (pitch, rhythm, harmony, style and form) as they relate to contemporary music. [Transferability: CSU]

MUS 68  CAREERS IN NEW MEDIA  1 Unit
Advisory: Not open to students with credit in ART 71, GRDS 51, PHOT 67, or VART 53.
2 hours lecture-laboratory.
Exploring the field of New Media. Survey of transfer schools, new media art studios, company art departments, media agencies and job opportunities. Overview of careers and functions. [Transferability: CSU]

MUS 80A  RECORDING STUDIO BASICS  4 Units
May be taken 3 times for credit.
2 hours lecture, 2 hours lecture-laboratory, 3 hours laboratory.
Introduction to fundamental concepts and techniques of mixing boards, amplifiers, microphones, signal processors and their application to both live and studio sound reinforcement. Basic introduction to computer based recording with DigiDesign Pro Tools. Microphone placement, physics of sound as it relates to recording, sound reinforcement and studio setup techniques. [Transferability: CSU]

MUS 81B  SOUND DESIGN FOR FILM & VIDEO  3.5 Units
May be taken 4 times for credit.
3 hours lecture, 1.5 hours laboratory.
Creating and editing soundtracks and audio for digital video, music video and film. Recording live sound, and integrating sound effects from a digital library. Dialogue editing and re-recording (looping), and musical soundtrack creation. Synchronization of audio to video using timecode, aesthetic quality of sound and music as it relates to video content, and the production of video/audio projects using Final Cut Pro/Avid Media Composer and Pro Tools. [Transferability: CSU]

MUS 81C  MIXING & MASTERING WITH PRO TOOLS  4 Units
May be taken 3 times for credit.
2 hours lecture, 2 hours lecture-laboratory, 3 hours laboratory.
Mixing and mastering multitrack recordings using Pro Tools. EQ, compression, reverb, delays, tempo maps, "Lo-Fi" techniques, multi-band compression. Comparison and contrast of various styles of mixing including jazz, classical, country, rock, hip hop and electronic music. Example exercises featuring professional recordings and mixes. Understanding and applying mixing concepts such as balance, dimension, and monitoring. Deliver final mixes that translate accurately to various speaker systems and listening environments. [Transferability: CSU]

MUS 81D  PRO TOOLS & PLUG-INS I  4 Units
May be taken 3 times for credit.
2 hours lecture, 2 hours lecture-laboratory, 3 hours laboratory.
Creative applications of plug-ins used in contemporary music production and sound design. Signal processing, equalization, compression, Beat Detective, distortion, reverb, delay, pitch correction, advanced plug-in automation techniques. Compare plug-ins and processors from different companies. Includes Waves Certification Program textbook providing high-quality, standardized means of mastering Waves plug-ins. Upon successful completion of this course, student is awarded Waves Certification Level A. [Transferability: CSU]

MUS 81E  PRO TOOLS & PLUG-INS II  4 Units
May be taken 3 times for credit.
2 hours lecture, 2 hours lecture-laboratory, 3 hours laboratory.
Creative editing and mixing techniques using Pro Tools plug-ins. Study and compare plug-ins from different manufacturers. Drum replacement and triggering, audio quantizing techniques. Apply Melodyne and Autotune pitch correction, EQ and compression, Elastic Audio editing. Sound restoration plug-ins, forensic audio enhancement, convolution reverbs, virtual instruments, advanced plug-in automation and signal processing techniques. Example exercises include sound design plug-ins for music, film, and video games. [Transferability: CSU]

MUS 82A  PRO TOOLS 101: INTRODUCTION TO PRO TOOLS  4 Units
Formerly: MUS 82B
May be taken 4 times for credit.
2 hours lecture, 2 hours lecture-laboratory, 3 hours laboratory.
Digidesign Certified course focuses on foundation skills needed to operate Pro Tools at a basic level. Build sessions that include multitrack recordings of live instruments, MIDI sequences, software synthesizers and samplers, audio looping with REX or ACID files. Develop essential techniques for recording, editing, and mixing. This is a required class for the Digidesign Pro Tools Operator Certification. [Transferability: CSU]

MUS 82B  PRO TOOLS 110: ESSENTIALS OF PRO TOOLS  4 Units
May be taken 4 times for credit.
2 hours lecture, 2 hours lecture-laboratory, 3 hours laboratory.
Essential Pro Tools concepts and techniques. Recording, editing and routing audio and MIDI data. Managing sessions and tracks, using virtual instruments, plug-ins, editing techniques, loop recording, Elastic Audio and music notation. Introduction to automation modes and workflows. This is a required class for the Digidesign Pro Tools Operator Certification. [Transferability: CSU]
MUS 82C  PRO TOOLS 201: PRO TOOLS PRODUCTION ESSENTIALS
4 Units
May be taken 4 times for credit. 2 hours lecture, 2 hours lecture-laboratory, 3 hours laboratory. Digidesign Certified course covers the core concepts and skills needed to operate a Pro Tools system in a professional studio environment. Introduction to Pro Tools HD systems and control surfaces. Concepts such as automation, editing, mixing, hardware setup and session management. Experience will be gained through a series of class exercise and project files. This is a required class for the Digidesign Pro Tools Operator Certification, and will prepare students for enrollment in Pro Tools 300 Expert Level Certification Courses. [Transferability: CSU]

MUS 82D  PRO TOOLS 210M: MUSIC PRODUCTION TECHNIQUES
4 Units
May be taken 4 times for credit. 2 hours lecture, 2 hours lecture-laboratory, 3 hours laboratory. Digidesign Certified course completes skills needed to operate a sophisticated Pro Tools system in a professional music production environment. Music production techniques, composing with MIDI, loop editing, sampling in Pro Tools, Beat Detective, Sound Replacer, final mixing and mastering. Upon successful completion of this course, student will be awarded Pro Tools Operator Certification in Music. [Transferability: CSU]

MUS 85A  MUSIC & MEDIA: EDISON TO HENDRIX
4 Units
Introductory study of the history and development of popular music from the inception of recording through the first televised performances of the Beatles in the U.S. Development of media delivery including recording, radio, television, and how those delivery systems changed both the content of music, and its use by the public. The class will investigate the influence of media on the development of styles such as jazz, swing, country, rockabilly and rock and roll, including societal changes brought about by media delivery of music and how it became associated with graphic imagery such as television and cinema. [Foothill GE: Humanities; Transferability: UC/CSU]

MUS 85B  MUSIC & MEDIA: HENDRIX TO HIP-HOP
4 Units
Introductory study of the history and development of popular music from 1964 through the present in the U.S. The class will examine the development of media delivery systems after The Beatles’ first appearances on television through the growth of rock and alternative styles. Styles and artist to be studied are such as punk, ska, the rebirth of country music and the rise of hip hop culture, examining artists such as Jimi Hendrix, Pink Floyd, David Bowie, Frank Zappa, Prince, The Police, Chuck D. and others. The class will study the development and growth of music videos as an art form and the delivery/promotional systems developed for them such as MTV. [Foothill GE: Humanities; Transferability: UC/CSU]

MUS 86  INTRODUCTION TO DIGITAL SOUND, VIDEO & ANIMATION
4 Units
Advisory: Not open to students with credit in ART 88, DRAM 86, GID 86 or VART 86. 2 hours lecture, 2 hours lecture-laboratory, 3 hours laboratory. Basic instruction using the computer for emerging media technologies; digital sound, video editing and animation. Emphasis on time-based media and creative problem solving. [Transferability: CSU]

MUS 90  MUSIC FOR MINORS TRAINING
3 Units
Advisory: Instructor approval based on demonstrated ability to maintain rhythm and pitch, and some recent child-related leadership experience. May be taken 2 times for credit. 6 hours lecture-laboratory. Training of volunteers (docents) to teach a comprehensive music program for elementary age classes. [Transferability: CSU]

MUS 150  MUSIC LABORATORY
.5 Unit
MUS 150X 1 Unit
MUS 150Y 1.5 Units
MUS 150Z 2 Units
Non-degree applicable credit course. Any combination of MUS 150–150Z may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit. 1.5 hours laboratory for each .5 unit of credit. Supervised activities in musical skills and materials related to music courses in which students are currently enrolled.

MUS 190  DIRECTED STUDY
.5 Unit
MUS 190X 1 Unit
MUS 190Y 1.5 Units
MUS 190Z 2 Units
Non-degree applicable credit course. Advisory: Pass/No Pass. Any combination of MUS 190–190Z may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit. 1.5 hours laboratory for each .5 unit of credit. Supervised activities in Music and/or Music Performance for students who desire or require additional help in attaining comprehension and competency in learning skills in a music subject area. Supervised by a music faculty member.

MUSP 20  REPERTORY CHORUS
2 Units
Prerequisite: Enrollment subject to standardized audition demonstrating musical ability and technical proficiency. May be taken 6 times for credit. 3 hours lecture-laboratory, 2 hours laboratory. Study, rehearsal and performance of choral repertoire drawn from a broad historical and stylistic range. Includes sacred and secular material, with focus on developing a varied concert program. Performances both on and off campus. Attendance at all performances required. [Transferability: UC/CSU]

MUSP 21  COLLEGE CHORALE
2 Units
May be taken 6 times for credit. 3 hours lecture-laboratory, 2 hours laboratory. Sing in harmony a variety of choral music, including spirituals, folk songs, pop hits, standard octavos and Broadway medleys. This course is open without regard for previous musical background. Attendance at all scheduled performances is required. [Transferability: UC/CSU]

MUSP 22  JAZZ SINGERS: INTRODUCTION TO VOCAL JAZZ ENSEMBLE
2 Units
Prerequisite: Enrollment subject to standardized audition demonstrating musical ability and technical proficiency. May be taken 6 times for credit. 3 hours lecture-laboratory, 2 hours laboratory. Study, rehearsal and performance of contemporary vocal ensemble repertoire drawn from the popular and jazz idiom. For students with little or no experience in vocal jazz. Attendance at all performances required. [Transferability: UC/CSU]

MUSP 23  FANFAIRS: ADVANCED VOCAL JAZZ ENSEMBLE
2 Units
Prerequisite: Enrollment subject to standardized audition demonstrating musical ability and technical proficiency. May be taken 6 times for credit. 3 hours lecture-laboratory, 2 hours laboratory. Study, rehearsal and performance of contemporary vocal ensemble repertoire drawn from the popular and jazz idiom. For students with previous experience in vocal jazz. Attendance at all performances required. [Transferability: UC/CSU]
MUSP 24 GOSPEL CHORUS 2 Units
MUSP 24X 4 Units
MUSP 24Y 6 Units
MUSP 24Z 8 Units

Any combination of MUSP 24–24Z may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit. 3 hours lecture-laboratory, 2 hours laboratory.

The study, rehearsal, and performance of choral repertoire drawn from African-American music of the church. Concert performances both on and off campus. Attendance at all performances required. [Transferability: UC/CSU]

MUSP 25 AEOLIAN CHORALE 2 Units
Prerequisite: Enrollment subject to standardized audition demonstrating musical ability and technical proficiency.

May be taken 6 times for credit. 3 hours lecture-laboratory, 2 hours laboratory.

The intermediate study, rehearsal and performance of choral literature for women's voices. Conertos are given both on and off campus. Attendance at all concerts is required. [Transferability: UC/CSU]

MUSP 26 ADVANCED WOMEN’S CHORUS 2 Units
MUSP 26X 4 Units
MUSP 26Y 6 Units
MUSP 26Z 8 Units
Prerequisite: Enrollment subject to standardized audition demonstrating musical ability and technical proficiency; prior singing experience or an instrumental background is required; fundamental sight reading.

Any combination of MUSP 26–26Z may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit. 3 hours lecture-laboratory, 2 hours laboratory for 2 units of credit.

Study, rehearsal, and performance of choral repertoire specially written for women's voices. Includes musical styles from the Medieval Period to Contemporary Classical music. Concert performances both on and off campus. Attendance at all performances required. [Transferability: UC/CSU]

MUSP 27 RENAISSANCE VOCAL ENSEMBLE 2 Units
MUSP 27X 4 Units
MUSP 27Y 6 Units
MUSP 27Z 8 Units
Prerequisite: Enrollment subject to standardized audition demonstrating musical ability and technical proficiency.

Any combination of MUSP 27–27Z may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit.

3 hours lecture-laboratory, 2 hours laboratory for 2 units of credit.

Training for the performance of choral music primarily from the Renaissance and Baroque periods. Emphasis will be on developing the basic choral skills of rhythmic and melodic accuracy, good blend, correct phrasing and clear articulation. Attendance at all scheduled performances is required. [Transferability: UC/CSU]

MUSP 28 CHAMBER SINGERS 2 Units
Prerequisite: Enrollment subject to standardized audition demonstrating musical ability and technical proficiency.

May be taken 6 times for credit. 3 hours lecture-laboratory, 2 hours laboratory.

Study and performance of choral repertoire specifically written for women's voices. Concerts are given both on and off campus. Attendance at all performances is mandatory. [Transferability: UC/CSU]

MUSP 29 MADRIGAL SINGERS 2 Units
Prerequisite: Enrollment subject to standardized audition demonstrating musical ability and technical proficiency.

May be taken 6 times for credit. 3 hours lecture-laboratory, 2 hours laboratory.

Study and performance of secular music in the madrigal style from all periods. Emphasis will be on musical performance as theatre. Performances will be in costume with narration. Participation by players of early instruments is encouraged. Attendance at all scheduled performances is required. [Transferability: UC/CSU]

MUSP 30 COLLEGE BAND 2 Units
MUSP 30X 4 Units
MUSP 30Y 6 Units
MUSP 30Z 8 Units
Prerequisite: Enrollment subject to standardized audition demonstrating musical ability and technical proficiency.

Any combination of MUSP 30–30Z may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit. 3 hours lecture-laboratory, 2 hours laboratory.

Study and performance of a large ensemble repertoire. Emphasis will be on the performance of music of the Renaissance and Baroque. Attendance at all scheduled performances is mandatory. [Transferability: UC/CSU]

MUSP 31 CONCERT BAND 2 Units
Prerequisite: Enrollment subject to standardized audition demonstrating musical ability and technical proficiency.

May be taken 6 times for credit. 3 hours lecture-laboratory, 2 hours laboratory.

Study and performance of classic band repertoire. Emphasis will be on the performance of music of the Classic and Romantic eras of music history. The study of correct playing techniques, particularly the stylistic demands of these two periods of ensemble performance, will be stressed. Attendance at all scheduled performances is mandatory. [Transferability: UC/CSU]

MUSP 32 SYMPHONIC WIND ENSEMBLE 2 Units
MUSP 32X 4 Units
MUSP 32Y 6 Units
MUSP 32Z 8 Units
Prerequisite: Enrollment subject to standardized audition demonstrating musical ability and technical proficiency.

Any combination of MUSP 32–32Z may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit. 3 hours lecture-laboratory, 2 hours laboratory for 2 units of credit.

Study and performance of music of the 19th and 20th Century. Emphasis will be on the performance of music of the Classic and Romantic eras of music history. The study of correct playing techniques, particularly the stylistic demands of these two periods of ensemble performance, will be stressed. Attendance at all scheduled performances is mandatory. [Transferability: UC/CSU]

MUSP 33 EVENING JAZZ ENSEMBLE 2 Units
MUSP 33X 4 Units
MUSP 33Y 6 Units
MUSP 33Z 8 Units
Prerequisite: Enrollment subject to standardized audition demonstrating musical ability and technical proficiency.

Any combination of MUSP 33–33Z may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit. 3 hours lecture-laboratory, 2 hours laboratory for 2 units of credit.

Study and performance of music of the 1980's to current and contemporary. Emphasis will be on the performance of music of the 20th Century. Emphasis will be on the development of skills in improvisation, composition, arranging and the performance of music of the 20th Century. Attendance at all scheduled performances is mandatory. [Transferability: UC/CSU]

MUSP 34 REPERTORY JAZZ ENSEMBLE 2 Units
MUSP 34X 4 Units
MUSP 34Y 6 Units
MUSP 34Z 8 Units
Prerequisite: MUSP 33 or equivalent.

Any combination of MUSP 34–34Z may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit. 3 hours lecture-laboratory, 2 hours laboratory for 2 units of credit.

Study and performance of classic band repertoire. Emphasis will be on the performance of music of the Classic and Romantic eras of music history. The study of correct playing techniques, particularly the stylistic demands of these two periods of ensemble performance, will be stressed. Attendance at all scheduled performances is mandatory. [Transferability: UC/CSU]
MUSP 35 STAGE BAND 2 Units
MUSP 35X 4 Units
MUSP 35Y 6 Units
MUSP 35Z 8 Units
Prerequisite: Enrollment subject to standardized audition demonstrating musical ability and technical proficiency.
Any combination of MUSP 35–35Z may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit. 3 hours lecture-laboratory, 2 hours laboratory for 2 units of credit. Study and preparation of beginning-level materials suitable for the large jazz ensemble. This course is intended for the less experienced player in this idiom. The basic jazz techniques related to big band performance will be stressed. Attendance at all scheduled performances is mandatory. [Transferability: UC/CSU]

MUSP 36 JAZZ LABORATORY BAND 2 Units
MUSP 36X 4 Units
MUSP 36Y 6 Units
MUSP 36Z 8 Units
Prerequisite: Enrollment subject to standardized audition demonstrating musical ability and technical proficiency. Advisory: MUS 10 or equivalent experience.
Any combination of MUSP 36–36Z may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit. 3 hours lecture-laboratory, 2 hours laboratory for 2 units of credit. Study and preparation of intermediate level materials suitable for the large jazz ensemble. Attendance at all scheduled performances is mandatory. [Transferability: UC/CSU]

MUSP 37 STRING ORCHESTRA 2 Units
MUSP 37X 4 Units
MUSP 37Y 6 Units
MUSP 37Z 8 Units
Prerequisite: Enrollment subject to standardized audition demonstrating musical ability and technical proficiency.
Any combination of MUSP 37–37Z may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit. 3 hours lecture-laboratory, 2 hours laboratory for 2 units of credit.Study and performance of Chamber and orchestral literature for strings. Attendance at all scheduled performance is required. [Transferability: UC/CSU]

MUSP 38 CHAMBER ORCHESTRA 2 Units
MUSP 38X 4 Units
MUSP 38Y 6 Units
MUSP 38Z 8 Units
Prerequisite: Enrollment subject to standardized audition demonstrating musical ability and technical proficiency.
Any combination of MUSP 38–38Z may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit. 3 hours lecture-laboratory, 2 hours laboratory for 2 units of credit. Study and performance of Chamber orchestral literature from the Renaissance to the present. Attendance at all scheduled performances is required. [Transferability: UC/CSU]

MUSP 39 COLLEGE ORCHESTRA 2 Units
MUSP 39X 4 Units
MUSP 39Y 6 Units
MUSP 39Z 8 Units
Prerequisite: Enrollment subject to standardized audition demonstrating musical ability and technical proficiency.
Any combination of MUSP 39–39Z may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit. 3 hours lecture-laboratory, 2 hours laboratory for 2 units of credit. Reading, study and performance of the orchestral literature of various styles and periods best suited for the college level instrumentalist. Attendance at all scheduled performances is required. [Transferability: UC/CSU]

MUSP 40 SYMPHONY ORCHESTRA 2 Units
MUSP 40X 4 Units
MUSP 40Y 6 Units
MUSP 40Z 8 Units
Prerequisite: Enrollment subject to standardized audition demonstrating musical ability and technical proficiency.
Any combination of MUSP 40–40Z may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit. 3 hours lecture-laboratory, 2 hours laboratory for 2 units of credit. Study, rehearsal and performance of the great masterworks for symphony orchestra with emphasis on works from the Classical through the Modern era of symphonic composition. Attendance at all scheduled rehearsals and performances are required. [Transferability: UC/CSU]

MUSP 43 CONTEMPORARY JAZZ ENSEMBLE 2 Units
Prerequisite: Enrollment subject to standardized audition demonstrating musical ability and technical proficiency.
May be taken 6 times for credit.
3 hours lecture-laboratory, 2 hours laboratory.
Study and preparation of advanced-level materials suitable for the large jazz ensemble. Selected music written in progressive or modern styles from the ‘60s–’90s will be studied and performed. Attendance at all scheduled performances is mandatory. [Transferability: UC/CSU]

MUSP 49 MUSIC REHEARSAL & PERFORMANCE 2 Units
MUSP 49X 4 Units
MUSP 49Y 6 Units
MUSP 49Z 8 Units
Advisory: Pass/No Pass.
Any combination of MUSP 49–49Z may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit. 3 hours lecture-laboratory, 2 hours laboratory for 2 units of credit. Supervised participation in public performance in a music department ensemble. Enrollment is for the duration of one particular performance or concert tour. [Transferability: UC/CSU]

MUSP 61A–F APPLIED JAZZ TRAINING 2 Units
Prerequisite: Enrollment subject to standardized audition demonstrating musical ability and technical proficiency.
May be taken 6 times for credit.
.5 hour lecture, 1.5 hours lecture-laboratory, 5 hours laboratory.
.5 hour per week lecture-recital instruction by the college staff, and one lesson per week with a private instructor by the student. A minimum of 10.5 hour lessons per quarter must be verified. [Transferability: CSU]

MUSP 95X PERFORMANCE PRACTICES 1.5 Units
MUSP 95Y IN MUSIC 2 Units
Prerequisite: Enrollment subject to standardized audition demonstrating musical ability and technical proficiency.
Any combination of MUSP 95–95Y may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit. 4 hours laboratory for each unit of credit.
A study of historical performance practices of vocal and instrumental music through group rehearsal and public performance of selected works. Attendance at all scheduled performances is required. [Transferability: CSU]

MUSP 96 CONCERT PREPARATION & PRESENTATION 1 Unit
Prerequisite: Enrollment subject to standardized audition demonstrating musical ability and technical proficiency.
May be taken 6 times for credit.
4 hours laboratory.
A laboratory course using techniques and procedures for developing quality musical performances. Attendance at all scheduled performances is required. [Transferability: CSU]
NANO 53 MATERIALS CHARACTERIZATION 5 Units
Advisory: NANO 52 or equivalent; students should have a basic knowledge of materials science, physics, and inorganic/organic chemistry; experience with some type of analytical instrumentation is beneficial. 5 hours lecture.
Focuses on techniques for micro and nano characterization of materials, including surface imaging and analysis techniques. Surveys the physics of instrumentation involved in characterizing materials, the typical approach to analyzing a wide variety of materials, including Micro Electro Mechanical Systems, carbon nanotubes, thin films, polymers, glasses, and other common nanomaterials. Materials analysis approaches to quality assurance and quality control, failure analysis, and problem solving. Hands-on exercises and experiential learning will include use of the Scanning Electron Microscope, Atomic Force Microscope-SPM, Auger Electron Spectroscopy, and analysis of X-Ray Photoelectron spectroscopy, Fourier Transform Infrared Spectroscopy, and Raman spectroscopy techniques. [Transferability: CSU]

NANO 54 SURFACES & THIN FILMS 5 Units
Advisory: NANO 52 and NANO 53 or equivalent; students should have a basic knowledge of materials science, physics, and inorganic/organic chemistry. 5 hours lecture.
Introduction to the physical chemistry and material properties of surface structures and states, and their importance in building devices at the nanoscale dimension, especially in thin films. The study of surfaces includes review of basic properties and roles of surface mechanisms, forces that lead to surface tension, physisorption and chemisorption, electronic and structural responses to surface termination, surface modification techniques, and modern methods for spectroscopic investigation in the context of industrial applications. The study of thin film fundamentals includes the theory, design, deposition, characterization, and applications in industry. Special topics may include Langmuir-Blodgett films, Self-Assembled Monolayers (SAMs), plasma surface modification, plasma polymerized organic films, and photovoltaics. [Transferability: CSU]

NANO 55 INTRODUCTION TO MICRO & NANO ELECTRONICS 5 Units
Advisory: NANO 51, 52, 53, ENGR 35, 37, PHYS 4D, MATH 2A or 10. 5 hours lecture.
Introduces and explains terminology, underlying principles, fundamental operational models, properties, and concepts associated with modern electronic circuits and their applications. Fundamentals of carrier generation, transport, recombination, and biasing in semiconductors. Provides insight into the internal workings of the “building-block” device structures such as the PN junction diode, metal semiconductor contacts, bipolar junction transistors, MOS capacitors, and field effect devices, solar cells, and LEDs. First order device models that reflect physical principles and are useful for integrated circuit analysis and design. Introduction to quantum effects. [Transferability: CSU]

NANO 56 PRINCIPLES OF MEMS, NEMS & SENSORS 5 Units
Advisory: NANO 51, 52, and 54; knowledge of semiconductor devices and processing is very beneficial. 5 hours lecture.
Introduction to the underlying principles and applications of micro and nano machined sensors and actuators, focusing on the use of fabrication technology for their realization. Basic mechanisms of transduction and the relative merits of different technologies. The basic principles for sensing displacement, force, pressure, acceleration, temperature, gases, and other physical parameters. Industry applications, design challenges, and manufacturing issues. Emerging micro and nano machining techniques and directions for future research. [Transferability: CSU]
NANO 57  INTRODUCTION TO MICRO & NANO FABRICATION TECHNIQUES  5 Units
Advisory: ENGR 76 or NANO 51; NANO 52 or equivalent; NANO 54, 55 and 56.
5 hours lecture.
Introduction to the underlying principles, techniques, and applications of fabrication technology from the top down and bottom up perspective. For students interested in the physical bases and practical methods of micro and nanoscale fabrication technology or the impact of technology on device design. Topics: the fundamental principles and methods of semiconductor/IC fabrication processes, crystal growth, oxidation, doping, etching, deposition, current lithography techniques, next generation lithography techniques, molecular manufacturing, DNA templating, protein assembly, packaging, back-end processing, quality control and yield analysis. [Transferability: CSU]

NANO 58  MICRO & NANO FABRICATION TECHNIQUES LABORATORY  5 Units
Advisory: NANO 51, 52, 53, 54, 55, 56 and 57.
5 hours lecture.
This course involves hands-on practical laboratory fabrication experience, process simulation using SUPREM or ATHENA, and testing of a simple fabricated device. Emphasis is on the practical aspects of fabrication, such as safety, wafer cleaning, lithography, etching, oxidation, diffusion, ion implantation, deposition, and wafer testing. Process simulators (SUPREM or ATHENA) are used to illustrate concepts, provide insight to the lab experience, and compare actual results to expected results. Class size will be limited and divided into groups. In addition to class lectures, each group will meet once a week for a minimum of a 4-hour guided lab session. Each group will be guided by an instructor or teaching assistant. The laboratory guide will give a demonstration of the fabrication equipment and the process, and then individuals will be able to participate in processing under his or her supervision. [Transferability: CSU]

NANO 59  NANOBIO TECHNOLOGY SCIENCES  5 Units
Advisory: NANO 51 and 52; BTEC 52A; knowledge of molecular biology is essential; organic chemistry strongly recommended.
5 hours lecture.
Examines the convergence of nanotechnology and biotechnology. Investigates biology as a small nanotechnology system, structural and functional principles in biobionanotechnology and biomolecular design. Emphasis on self-assembly of organic and inorganic nanostructures using proteins as molecular bionanomachines and DNA templating. Explores the use of artificial genomes and synthetic proteins in novel cellular systems. Basic knowledge of design and use of biosensors and BioMEMS, microarray technology (GeneChip), nanopore DNA sequencing, and microfluidic devices. Special topics may include digital cells and insilico biology, biomaterials, and biomedical devices designed and engineered using micro and nanotechnology. [Transferability: CSU]

NANO 60  INTRODUCTION TO CLEAN TECHNOLOGY  5 Units
Advisory: NANO 51; Knowledge of materials science, energy systems, and electricity.
5 hours lecture.
Introduction to the field of clean technology, known as cleantech, intended for a multidisciplinary audience with a variety of backgrounds and interests. Emphasizes technologies and applications in engineering and materials, physics, chemistry, and related fields in nanoscience especially related to environmental remediation, and new engineering approaches to fuel cells, motors, batteries, and insulation, among other aspects of energy conservation. Introduces principles and theory relevant to solar energy using silicon and other thin film and nanoscale approaches. Discusses current and future trends in global energy demand and production, emphasizing the urgent need for both increased capacity and zero emission technology. [Transferability: CSU]

NANO 61  MICRO & NANO FABRICATION TECHNIQUES CAPSTONE  5 Units
Prerequisite: Satisfactory completion of NANO 51, 52, 53 and at least one course from NANO 54–60; consent of supervisory faulty.
5 hours lecture.
Capstone course requiring research to be undertaken by students during their tenure in the Nanoscience program, or a properly documented experiential learning outcome. Research can be conducted through any college or university, but must include a course number and evaluation by properly credentialed faculty. A range of interdisciplinary projects will be accepted by contributing schools, including departments of Chemistry, Biochemistry, Biology, Biotechnology, Physics, Engineering, and Materials Science, enabling students to carry out experimental investigations in any applied area of nanotechnology. Work will be accompanied by a 15 to 25-page research document, formatted consistently with scholarly publications, including necessary citations. Internships should include a description of research goals and objectives, learning outcomes, and wherever possible, include entry into an electronic portfolio. Internships from NASA, SRI, and other universities are applicable for students to pursue. [Transferability: CSU]

NON-CREDIT: BASIC SKILLS
Non-Credit (650) 949-6950
NCBS 400  LANGUAGE & LIFE SKILLS LITERACY  0 Units
Non-degree applicable non-credit course.
Unlimited repeatability.
72 hours total.
Provides elementary and secondary level instruction and a self-paced lab experience for students working to improve communication, pronunciation, reading and speaking. Students work with instructor and computer based language program, Rosetta Stone, to improve English language skills. Assists students in preparation for credit level ESL courses.

NCBS 401A  MATHEMATICAL FOUNDATIONS FOR COLLEGE PART I  0 Units
Formerly: MATH 300
Non-degree applicable non-credit course.
Unlimited repeatability.
20 hours total.
This is part one of a bridge program that focuses on the development of quantitative thinking skills within the context of the culture of the college classroom, assessment skills without a calculator, exploration of resources offered by the community college, development of basic mathematical literacy skills.

NCBS 401B  MATHEMATICAL FOUNDATIONS FOR COLLEGE PART II  0 Units
Formerly: MATH 300
Non-degree applicable non-credit course.
Prerequisite: NCBS 401A
Unlimited repeatability.
40 hours total.
This is part two of a bridge program that focuses on the development of quantitative thinking skills within the context of addition, subtraction, multiplication and division of whole numbers in preparation for basic skills mathematics course.
NON-CREDIT: ENGLISH AS A SECOND LANGUAGE

Non-Credit (650) 949-6950

NCEL 400 BRIDGE TO COLLEGE 0 Units
Non-degree applicable non-credit course. Advisory: Completion of the adult education course sequence or test score above 247 on the CASAS Level C Reading test. Unlimited repeatability. 60 hours total.
This is a bridge to college course for non-native speakers of English that focuses on the development of English language skills within the context of the culture of the college classroom, classroom communication skills and exploration of life paths and the resources offered by the community college.

NON-CREDIT: PARENTING EDUCATION

Non-Credit (650) 949-6950

NCP 400 STRONG START FOR CHILDREN 0 Units
Non-degree applicable non-credit course. Unlimited repeatability. 8 hours total.
Introduces families and caregivers to stages of child development, best practices in parenting and links students to resources. Emphasis placed on child development, effective communication and discipline, and school readiness. This is the first course in a sequence of three (with NCP 401 and NCP 402) which leads to a Certificate of Completion in Parenting Skills and helps prepare students for credit classes in Child Development. May be offered bilingually.

NCP 401 NURTURING HEALTHY CHOICES 0 Units
Non-degree applicable non-credit course. Unlimited repeatability. 8 hours total.
Introduces families and caregivers to healthy feeding practices, best practices in parenting, and links students to resources. Emphasis placed on family wellness, nutrition and healthy feeding dynamics as related to the child’s developmental stages. Second course in a sequence of three (with NCP 400 and NCP 402) which leads to a Certificate of Completion in Parenting Skills and helps prepare students for credit classes in Child Development. May be offered bilingually.

NCP 402 PARENT INVOLVEMENT: THE IMPORTANCE OF FAMILY IN THE LIVES OF CHILDREN 0 Units
Non-degree applicable non-credit course. Unlimited repeatability. 8 hours total.
Introduces families and caregivers to the importance of family in the lives of children, best practices in parenting and linking students to resources. Emphasis placed on parent involvement, accessing resources and navigating systems in multicultural communities. Third course in a sequence of three (with NCP 400 and NCP 401) which leads to a Certificate of Completion in Parenting Skills and helps prepare students for credit classes in child development. May be offered bilingually.

NCP 403 BUILDING BRIDGES, OPENING DOORS, Raising Emotionally Healthy Children 0 Units
Non-degree applicable non-credit course. Unlimited repeatability. 24 hours total.
A Parents as Partners Series targeted to families and their caregivers, providers and educators serving these families. Provides an understanding of the importance of meeting emotional needs in raising healthy children through parenting and child development, prenatal through adolescence. Completion of this class helps prepare students for credit classes in Child Development. May be offered bilingually.

NON-CREDIT: SHORT-TERM VOCATIONAL

Non-Credit (650) 949-6950

NCSV 400 GERIATRIC HOME AIDE BASICS 0 Units
Non-degree applicable non-credit course. Unlimited repeatability. 60 hours total.
Provides students to care for ambulatory elderly clients in their own homes. Focus on nutrition, including dietary needs of geriatric and AIDS patients, cultural foods, cooking, and kitchen sanitation. Intended for students pursuing a career as a geriatric home aide. Completion of both NCSV 400 and 401 leads to a noncredit certificate in Geriatric Home Aide.

NCSV 401 GERIATRIC HOME AIDE - NUTRITION 0 Units
Non-degree applicable non-credit course. Unlimited repeatability. 44 hours total.
Provides students to care for ambulatory elderly clients in their own homes. Focus on nutrition, including dietary needs of geriatric and AIDS patients, cultural foods, cooking, and kitchen sanitation. Intended for students pursuing a career as a geriatric home aide. Completion of both NCSV 400 and 401 leads to a noncredit certificate in Geriatric Home Aide.

NCSV 400 GERIATRIC HOME AIDE BASICS 0 Units
Non-degree applicable non-credit course. Unlimited repeatability. 60 hours total.
Provides students to care for ambulatory elderly clients in their own homes. Focus on nutrition, including dietary needs of geriatric and AIDS patients, cultural foods, cooking, and kitchen sanitation. Intended for students pursuing a career as a geriatric home aide. Completion of both NCSV 400 and 401 leads to a noncredit certificate in Geriatric Home Aide.

NCWP 400 BLUEPRINT FOR WORKPLACE SUCCESS 0 Units
Non-degree applicable non-credit course. Unlimited repeatability. 36 hours total.
Provides students necessary tools in order to develop good customer service skills for the workplace focusing on getting to know customers, listening and problem solving. Completion of this course in addition to NCWP 401, 402 and 403 leads to a Job Readiness Certificate of Completion.

NCWP 401 BLUEPRINT FOR CUSTOMER SERVICE 0 Units
Non-degree applicable non-credit course. Unlimited repeatability. 18 hours total.
Provides students necessary tools in order to develop good customer service skills for the workplace focusing on getting to know customers, listening and problem solving. Completion of this course in addition to NCWP 400, 402 and 403 leads to a Job Readiness Certificate of Completion.

NCWP 402 30 WAYS TO SHINE AS A NEW EMPLOYEE 0 Units
Non-degree applicable non-credit course. Unlimited repeatability. 6 hours total.
Provides students with necessary tools and techniques in order to identify and/or enhance the job-related abilities and qualities they possess, find a job, successfully apply and interview and keep the job by using effective workplace behaviors and communication skills. Completion of this course in addition to NCWP 400, 401 and 402 leads to a Job Readiness Certificate of Completion.

NCWP 403 JOB CLUB 0 Units
Non-degree applicable non-credit course. Unlimited repeatability. 7 hours total.
Provides students with the necessary tools and skills in order to succeed in the workplace. These skills include the process of looking for appropriate work, preparing for an interview, contacting employers, writing a resume and cover letter for a specific job, and participating in a job interview. Completion of this course in addition to NCWP 400, 401 and 402 leads to a Job Readiness Certificate of Completion.
PERFORMING ARTS

Fine Arts & Communication  (650) 949-7479  www.foothill.edu/fa/

P A 11  THEATRICAL REHEARSAL  2 Units
P A 11X & PERFORMANCE  4 Units
P A 11Y  6 Units
P A 11Z  8 Units
Advisory: Not open to students with credit in DRAM 49 or THTR 49.
Any combination of P A 11–11Z may be taken 6 times for credit, however,
no single course may be taken more than 6 times for credit.
3 hours lecture-laboratory, 2 hours laboratory for 2 units of credit.
Supervised participation in scheduled theatrical productions, as cast or
crew. Enrollment in each course is for the duration of the production.
[Transferability: UC/CSU]

P A 21  MUSIC REHEARSAL & PERFORMANCE  2 Units
P A 21X  4 Units
P A 21Y  6 Units
P A 21Z  8 Units
Advisory: Pass/No Pass
Any combination of P A 21–21Z may be taken 6 times for credit, however,
no single course may be taken more than 6 times for credit.
3 hours lecture-laboratory, 2 hours laboratory for 2 units of credit.
Supervised participation in public performance in a music department
ensemble. Enrollment is for the duration of one particular performance
or concert tour. [Transferability: UC/CSU]

P A 111  PERFORMANCE PRACTICES  2 Units
P A 111X  4 Units
P A 111Y  8 Units
P A 111Z  16 Units
Prerequisite: Enrollment subject to audition.
Advisory: Pass/No Pass.
Any combination of P A 111–111Z may be taken 6 times for credit, however,
no single course may be taken more than 6 times for credit.
8 hours laboratory for 2 units of credit.
Study, rehearsal, and performance of theatre performance pieces. Designed
as a performance course for actors and theatre technicians wishing to
explore the vast theatre repertoire more fully and with other performance
artists. Repertoire may include works from Greek to contemporary, non-musical and
musical theatre, and non-western theatre. Performances both on and off campus. Attendance at all performances required.

P A 121  PERFORMANCE PRACTICES IN  2 Units
P A 121X  4 Units
P A 121Y  8 Units
P A 121Z  16 Units
Prerequisite: Enrollment subject to audition.
Advisory: Pass/No Pass.
Any combination of P A 121–121Z may be taken 6 times for credit, however,
no single course may be taken more than 6 times for credit.
8 hours laboratory for 2 units of credit.
Study, rehearsal, and performance of vocal/choral repertoire. Designed
as an advanced performance course for ensemble singers wishing to
explore the vast choral repertoire more fully with other performance
artists. Repertoire includes music from medieval to contemporary, and
non-western music. Concert performances both on and off campus. Attendance at all performances required.

P A 131  PERFORMANCE PRACTICES IN  2 Units
P A 131X  4 Units
P A 131Y  8 Units
P A 131Z  16 Units
Prerequisite: Enrollment subject to audition.
Advisory: Pass/No Pass.
Any combination of P A 131–131Z may be taken 6 times for credit, however,
no single course may be taken more than 6 times for credit.
8 hours laboratory for 2 units of credit.
Study, rehearsal, and performance of instrumental performance pieces
for varied ensembles. Designed as a performance course for players of
string, wind, and percussion instruments wishing to explore the vast
instrumental repertoire more fully with other performance artists,
including music from renaissance to contemporary, and non-western
music. Concert performances both on and off campus. Attendance at all performances required.

P A 141  PERFORMING ARTS COLLEGIUM  2 Units
P A 141X  4 Units
P A 141Y  8 Units
P A 141Z  16 Units
Prerequisite: Enrollment subject to audition.
Advisory: Pass/No Pass.
Any combination of P A 141–141Z may be taken 6 times for credit, however,
no single course may be taken more than 6 times for credit.
8 hours laboratory for 2 units of credit.
An advanced laboratory course involving approved student performance,
or performance support in music, theatre, or dance, including theatre
technicians, and sound and video recording arts. Performances or
productions for community musical, theatre or dance events may
be planned and executed in this class. Includes required public
performances. May be taken 6 times for credit.

P A 150  PERFORMING ARTS LABORATORY .5 Unit
P A 150X  1 Unit
P A 150Y  2 Units
P A 150Z  3 Units
Prerequisite: Enrollment subject to audition.
Advisory: Pass/No Pass.
Any combination of P A 150–150Z may be taken 6 times for credit, however,
no single course may be taken more than 6 times for credit.
1.5 hours laboratory for each .5 unit of credit.
Supervised activities in performing arts, related to skills and materials of
other performing arts courses in which students are currently enrolled.

P A 161  DIRECTED STUDIES IN THE .5 Unit
P A 161X  1 Unit
P A 161Y  2 Units
P A 161Z  3 Units
Prerequisite: Enrollment subject to audition.
Advisory: Pass/No Pass.
Any combination of P A 161–161Z may be taken 6 times for credit, however,
no single course may be taken more than 6 times for credit.
1.5 hours laboratory for each .5 unit of credit.
A directed study laboratory course involving approved student performance,
or performance support in music, or dance, including theatre
technicians, and sound and video recording arts. Performances or
productions for community musical, theatre or dance events may
be planned and executed in this class. Includes required public
performances.

All courses on this page are Title 5 degree applicable credit courses unless otherwise noted.
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<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Prerequisites</th>
<th>Description</th>
</tr>
</thead>
</table>
| PHT 50     | ORIENTATION TO PHARMACY TECHNOLOGY                | 3     | Admission to Pharmacy Technology Program          | An orientation to the role and working environment of the pharmacy technician, in both inpatient and outpatient settings. An introduction to the legal responsibilities and technical activities of the pharmacy technician.  
  [Transferability: CSU]                                                   |
| PHT 51     | BASIC PHARMACEUTICS                               | 4     | Admission to Pharmacy Technology Program          | An introduction to the pharmacological principles as they are related to and support an understanding of rational drug usage. An understanding of the profound influence of drug laws, standards and regulations.  
  [Transferability: CSU]                                                   |
| PHT 52A    | INPATIENT DISPENSING                              | 3     | Admission to Pharmacy Technology Program          | A review of the usual technician functions associated with an institutional drug distribution system. Practical experience in the manipulative and record-keeping functions of extemporaneous preparations in an inpatient pharmacy.  
  [Transferability: CSU]                                                   |
| PHT 52B    | ASEPTIC TECHNIQUE & IV PREPARATION                | 4     | PHT 52A.                                         | The compounding of sterile products according to the appropriate technique. An introduction to the concepts of sterility and incompatibility. The use of applicable quality assurance processes and performance of work in accordance with the laws, regulations, and standards which govern the preparation of sterile products, with special emphasis on the preparation of parenteral chemotherapy with strict adherence to all precautionary standards.  
  [Transferability: CSU]                                                   |
| PHT 53     | AMBULATORY PHARMACY PRACTICE                      | 4     | Admission to Pharmacy Technology Program          | A general study of the usual technician functions associated with an institutional drug distribution system. Practical experience in the manipulative and record-keeping functions of extemporaneous preparations in an inpatient pharmacy.  
  [Transferability: CSU]                                                   |
| PHT 54A    | DOSAGE CALCULATIONS A                             | 3     | Admission to Pharmacy Technology Program          | An introduction to the use of pharmaceutical measuring systems with emphasis on the metric system and intersystem conversions.  
  [Transferability: CSU]                                                   |
| PHT 54B    | DOSAGE CALCULATIONS B                             | 3     | PHT 54A.                                         | Calculation of the correct oral and parenteral dosages of drugs using information from prescriptions or medications orders. Accurate determination of the correct amount of ingredients for the compounding of pharmaceutical products from a prescription or medications order.  
  [Transferability: CSU]                                                   |
| PHT 55A    | PHARMACOLOGY A                                   | 6     | PHT 50.                                          | A study of the basic anatomy, physiology, and pharmacology of the nervous system, the senses, the endocrine system, the digestive system, the urinary system, and the reproductive system.  
  [Transferability: CSU]                                                   |
| PHT 55B    | PHARMACOLOGY B                                   | 6     | PHT 55A.                                         | A study of the basic anatomy, physiology, and pharmacology of body tissues and membranes, the integumentary system, the skeletal system, the muscular system, the cardiovascular system, the blood, the lymphatic system and immunization, the respiratory system. A review of body temperature. A discussion on metabolism with emphasis on nutrition.  
  [Transferability: CSU]                                                   |
| PHT 56A    | DISPENSING & COMPOUNDING A                        | 4     | PHT 50.                                          | General preparation of nonsterile solid and liquid pharmaceutical dosage forms for oral and topical use. Practical experience in the manipulative and record-keeping functions associated with the compounding and dispensing of prescriptions for ambulatory patients. Study of dosage forms, advantages and disadvantages, uses, storage and packaging of pharmaceutical products.  
  [Transferability: CSU]                                                   |
| PHT 56B    | DISPENSING & COMPOUNDING B                        | 3     | PHT 56A.                                         | General preparation of topical, transdermal, rectal, ophthalmic, and otic pharmaceutical dosage forms. Practical experience in the manipulative and record-keeping functions associated with the compounding and dispensing of prescriptions. Study of dosage forms, advantages and disadvantages, uses, storage and packaging of pharmaceutical products.  
  [Transferability: CSU]                                                   |
| PHT 60A    | RETAIL CLINICAL I                                 | 1.5   | Admission to Pharmacy Technology Program          | The practice, in an outpatient environment, of skills developed in didactic and laboratory training. Activities will be performed by the student and evaluated by a preceptor.  
  [Transferability: CSU]                                                   |
| PHT 60B    | RETAIL CLINICAL II                                | 1.5   | PHT 60A.                                         | The practice, in the outpatient environment, of skills developed in didactic and laboratory training. Activities will be performed by the student and evaluated by a preceptor.  
  [Transferability: CSU]                                                   |
| PHT 61     | HOME HEALTHCARE SUPPLIES                          | 3     | PHT 50.                                          | A general study of the diseases and conditions that require ongoing health maintenance by the patient, and the tests and devices used for the control of these diseases and conditions. Single-use test kits for routine health screening. An evaluation of alternative forms of health care. A study of the vitamins and minerals commonly used in pharmaceutical preparations.  
  [Transferability: CSU]                                                   |
| PHT 62A    | HOSPITAL CLINICAL I                               | 1.5   | Admission to Pharmacy Technology Program          | The practice, in both inpatient and outpatient environments, of skills developed in didactic and laboratory training. Activities will be performed by the student and evaluated by a preceptor.  
  [Transferability: CSU]                                                   |
| PHT 62B    | HOSPITAL CLINICAL II                              | 1.5   | Admission to Pharmacy Technician Program          | The practice, in an inpatient environment, of skills developed in didactic and laboratory training of preparation of sterile products. Activities will be performed by the student and evaluated by a preceptor.  
  [Transferability: CSU]                                                   |
**PHIL 1 CRITICAL THINKING & WRITING** 5 Units
Prerequisite: ENGL 1A.
5 hours lecture.
Develops understanding of informal logic and practical reasoning skills necessary for academic success, including tools needed to analyze information from a variety of sources such as academic essays, philosophic literature, news media and advertising. Focus on skills of argumentation including, but not limited to, elements of an argument, deductive and inductive forms of argumentation, the evaluation of arguments and the recognition of a variety of fallacies. Skills developed through a series of written assignments of increasing scope and difficulty culminating in a sophisticated argumentative essay. [Foothill GE: Communication & Analytical Thinking; Transferability: UC/CSU]

**PHIL 2 INTRODUCTION TO SOCIAL & POLITICAL PHILOSOPHY** 4 Units
4 hours lecture.
Social and political philosophies of classical, modern and contemporary thinkers. [Foothill GE: Humanities; Transferability: UC/CSU]

**PHIL 4 INTRODUCTION TO PHILOSOPHY** 4 Units
4 hours lecture.
Introductory survey of basic principles and concerns of philosophy and of philosophical questions. Examines selected concepts concerned with the meaning and nature of reality, knowledge, morals, religion, aesthetics and issues of social and political concern. [Foothill GE: Humanities; Transferability: UC/CSU]

**PHIL 7 INTRODUCTION TO SYMBOLIC LOGIC** 5 Units
5 hours lecture.
Use of logic as a tool for analyzing arguments. Development of formal proof techniques including quantification theory. [Foothill GE: Communication & Analytical Thinking; Transferability: UC/CSU]

**PHIL 8 ETHICS** 5 Units
5 hours lecture.

**PHIL 11 INTRODUCTION TO THE PHILOSOPHY OF ART** 4 Units
4 hours lecture.
Analysis of central problems and challenges in aesthetics. Art and beauty, possibility of objectivity in criticism, modern and traditional definitions of a work of art. Considers truth and meaning in fine arts and literature, natural beauty and its relationship to excellence in music and architecture. [Foothill GE: Humanities; Transferability: UC/CSU]

**PHIL 20A HISTORY OF WESTERN PHILOSOPHY** 4 Units
4 hours lecture.
Examination of Western philosophy with an emphasis on Greek philosophy from Thales through Aristotle and selected medieval philosophers from Augustine to St. Thomas Aquinas. [Foothill GE: Humanities; Transferability: UC/CSU]

**PHIL 20B HISTORY OF WESTERN PHILOSOPHY** 4 Units
4 hours lecture.
Examination of Western philosophy in the early modern period with an emphasis on major philosophers such as Descartes, Hume and Kant. [Transferability: UC/CSU]

**PHIL 20C CONTEMPORARY PHILOSOPHY: 19TH & 20TH CENTURY THOUGHT** 4 Units
Advisory: Eligibility for ENGL 1A or ESL 26.
4 hours lecture
Survey of the history of western philosophy during the 19th and 20th centuries. Examination of major philosophic developments, theories and movements. Special attention to the influence of 19th and 20th century thought on our contemporary world view. [Transferability: UC/CSU]

**PHIL 22 INTRODUCTION TO WORLD RELIGIONS: THE SEARCH FOR SPIRITUAL MEANING** 4 Units
4 hours lecture.
Examines the ability of religion to satisfy the spiritual needs of its followers. Focus on individual confrontation of dynamic social forces at work globally in the 1990’s. Multicultural views as applied to world religions. [Foothill GE: United States Cultures & Communities, Human; Transferability: UC/CSU]

**PHIL 24 COMPARATIVE WORLD RELIGIONS: EAST** 4 Units
4 hours lecture.
Origin, history and significant ideas of the world’s major Eastern religions. Primitive religion, Hinduism, Buddhism, Confucianism, Taoism, and Shintoism as seen through the perspective of contemporary American expressions and practice. [Foothill GE: Humanities; Transferability: UC/CSU]

**PHIL 25 COMPARATIVE WORLD RELIGIONS: WEST** 4 Units
4 hours lecture.
Origin, history and significant ideas of the world’s major Western religions as seen through the practice and expression of contemporary American diversity. Comparisons of fundamental insights, ideals and contributions towards human moral heritage of primitive religion, Zoroastrianism, Judaism, Christianity, and Islam. [Foothill GE: Humanities; Transferability: UC/CSU]

**PHIL 34H HONORS INSTITUTE SEMINAR** 1 Unit
In Philosophy
Formerly: PHIL 34
Prerequisite: Honors Institute participant.
Advisory: Not open to students with credit in PHIL 34.
1 hour lecture.
A seminar in directed readings, discussions and projects in philosophy. Specific topics to be determined by the instructor. [Transferability: UC; UC credit may be granted after transfer and upon portfolio review.]

**PHIL 35 DEPARTMENT HONORS PROJECTS** 1 Unit
In Philosophy
May be taken 6 times for credit.
1 hour lecture.
Seminar in readings, research, critical techniques and practice. Specific topics vary. [Transferability: CSU]
PHIL 36  SPECIAL PROJECTS IN PHILOSOPHY  1 Unit
PHIL 36X  2 Units
PHIL 36Y  3 Units
PHIL 36Z  4 Units
Any combination of PHIL 36–36Z may be taken 6 times for credit; however, no single course may be taken more than 6 times for credit.
Advanced readings research, and/or project in philosophy. Specific topics determined in consultation with instructor. [Transferability: CSU]

PHIL 50  INTRODUCTION TO CRITICAL THINKING  4 Units
Advisory: Eligibility for ENGL 1A or ESL 26. 4 hours lecture
Develops understanding of informal logic and practical reasoning skills necessary for academic success, including tools needed to analyze information from a variety of sources such as academic essays, philosophic literature, news media and advertising. Focus on skills of argumentation including, but not limited to, elements of an argument, deductive and inductive forms of argumentation, the evaluation of arguments and the recognition of a variety of fallacies. Skills developed through written analysis of a variety of sources including but not limited to academic articles, news media, televised debates and advertisements. [Foothill GE: Communication & Analytical Thinking; Transferability: UC/CSU]

PHOTOGRAPHY

Fine Arts & Communication  (650) 949-7318
www.foothill.edu/fa/photo

PHOT 1  BLACK & WHITE PHOTOGRAPHY I  4 Units
2 hours lecture, 3 hours lecture-laboratory, 2 hours laboratory.
Fundamentals of black and white still photography. Introduction to the historical development of the medium and the role that photography has played in shaping social issues and and its effect on culture. Practical investigation of photography’s potential to contribute to personal visual expression. Exposure to multiple perspectives on photography as practiced and contributed by diverse cultures. Topics cover photographic seeing, camera operation, use of aperture and shutter settings for aesthetic and sensitometric control, film processing, printing, and use of natural light for personal expression and communication. Introduction to electronic imaging processes. [Foothill GE: Humanities; Transferability: UC/CSU]

PHOT 2  BLACK & WHITE PHOTOGRAPHY II  4 Units
Prerequisite: PHOT 1 or equivalent. May be taken 2 times for credit.
2 hours lecture, 3 hours lecture-laboratory, 1.5 hours laboratory.
Emphasis on control of available light through use of tripods and push-processing; use of electronic flash and studio lights; attributes of various films and appropriate chemistry for each; graded papers; larger format cameras, introduction to sensitometry; specialized developing and printing techniques, enhancing personal photographic expression; digital manipulation of the photographic image. [Transferability: UC/CSU]

PHOT 5  INTRODUCTION TO PHOTOGRAPHY  4 Units
3 hours lecture, 2 hours lecture-laboratory.
A survey of the historical and practical aspects of photography as an art form. Students will be introduced to the use of light, composition and communication through images. Significant photographers from a diversity of backgrounds will inspire students in the practice of photography and developing an appreciation of the varied uses of the photographic image in our culture. [Foothill GE: Humanities; Transferability: UC/CSU]

PHOT 8  PHOTOGRAPHY OF MULTICULTURAL AMERICA  4 Units
Advisory: Not open to students with credit in PHOT 8H.
4 hours lecture, 2 hours laboratory.
Examination of photography’s role in shaping ideas about race, class, gender, sexuality and national identity in America. Critical analysis of images from a wide range of genres including: commercial photography, portraiture, social documentary, photojournalism, ethnographic and scientific photography, erotica, and fine-art photography are discussed within their historical and social context. [Foothill GE: United States Cultures & Communities, Human; Transferability: UC/CSU]

PHOT 8H  HONORS PHOTOGRAPHY OF MULTICULTURAL AMERICA  4 Units
Prerequisite: Honors Institute participant. 4 hours lecture, 2 hours laboratory.
Examination of photography’s role in shaping ideas about race, class, gender, sexuality and national identity in America. Critical analysis of images from a wide range of genres including: commercial photography, portraiture, social documentary, photojournalism, ethnographic and scientific photography, erotica, and fine-art photography are discussed within their historical and social context. The honors course offers an enriched and challenging experience for the more talented student, including deeper content, more rigorous grading, and more demanding and creative assignments requiring application of higher-level thinking, writing, and communication skills. [Foothill GE: United States Cultures & Communities, Human; Transferability: UC/CSU]

PHOT 10  HISTORY OF PHOTOGRAPHY  4 Units
Advisory: PHOT 1 or equivalent; not open to students with credit in PHOT 10H.
3 hours lecture, 3 hours laboratory.
The history of still photography from the earliest investigations of the camera obscura to late 20th Century electronic imaging. Emphasis on the role of photographs as a social and cultural force and on our artistic heritage of camera work. [Foothill GE: Humanities; Transferability: UC/CSU]

PHOT 10H  HONORS HISTORY OF PHOTOGRAPHY  4 Units
Prerequisite: Honors Institute participant. 3 hours lecture, 3 hours laboratory.
The history of still photography from the earliest investigations of the camera obscura to late 20th Century electronic imaging. Emphasis on the role of photographs as a social and cultural force and on our artistic heritage of camera work. The honors course offers an enriched and challenging experience for the more talented student, including deeper content, more rigorous grading, and more demanding and creative assignments requiring application of higher-level thinking, writing, and communication skills. [Foothill GE: Humanities; Transferability: UC/CSU]

PHOT 11  CONTEMPORARY ISSUES IN PHOTOGRAPHY  4 Units
Formerly: PHOT 59
Advisory: Not open to students with credit in PHOT 11H or 59. 3 hours lecture, 3 hours laboratory.
Survey of contemporary issues in photography. Critical theory and other issues surrounding contemporary photographic practices are explored through the style and content of work by selected contemporary photographers. Censorship, copyright, appropriation, and other current issues affecting the contemporary photographer are discussed. The interplay of traditional and digital photography and how it affects our concepts of truth, reality, society, and culture. [Foothill GE: Humanities; Transferability: UC/CSU]

PHOT 11H  HONORS CONTEMPORARY ISSUES IN PHOTOGRAPHY  4 Units
Prerequisite: Honors Institute participant. 3 hours lecture, 3 hours laboratory.
Survey of contemporary issues in photography. Critical theory and other issues surrounding contemporary photographic practices are explored through the style and content of work by selected contemporary photographers. Censorship, copyright, appropriation, and other current issues affecting the contemporary photographer are discussed. The interplay of traditional and digital photography and how it affects our concepts of truth, reality, society, and culture. The honors course offers an enriched and challenging experience for the more talented student, including deeper content, more
PHOT 13 EXPERIMENTAL PHOTOGRAPHY 4 Units
Advisory: PHOT 2.
May be taken 3 times for credit.
2 hours lecture, 3 hours lecture-laboratory, 1.5 hour laboratory.
Exploration of experimental approaches to creative photography, using silver and nonsilver processes. Introduction to digital manipulation of images. [Transferability: UC/CSU]

PHOT 50 BLACK & WHITE PHOTOGRAPHY III 4 Units
Prerequisite: PHOT 2.
May be taken 3 times for credit.
2 hours lecture, 3 hours lecture-laboratory, 1.5 hour laboratory.
An exploration of the Zone System through the use of advanced processing and printing techniques; introduction to the Zone System and film calibration; creating special effects; high contrast and infrared films; integration of aesthetics and technique, emphasis on development of a personal style. [Transferability: CSU; UC approval is pending.]

PHOT 51 ZONE SYSTEM PHOTOGRAPHY 4 Units
Prerequisite: PHOT 2.
May be taken 3 times for credit.
2 hours lecture, 3 hours lecture-laboratory, 1.5 hour laboratory.
Investigation of a specific aspect or topic of photography through the use of special processing and fine printing techniques. A study of the integration of aesthetics, film calibration, development of film, printing, and techniques associated with the Zone System. Acquisition of fine printing and archival processing techniques suitable for producing exhibit quality presentations. Application of understanding of Zone System to both digital and color materials. Appreciation of contributions by photographers of diverse backgrounds. [Transferability: CSU]

PHOT 55 SPECIAL PROJECTS IN PHOTOGRAPHY 2 Units
Prerequisite: PHOT 2 or 65B.
1 hour lecture, 3 hours laboratory.
Specific topics in creative, technical or applied photography must be determined in consultation with instructor. A limited area is explored in depth. [Transferability: CSU]

PHOT 57A PHOTOGRAPHIC PORTFOLIO DEVELOPMENT 4 Units
Prerequisite: PHOT 1, 2, 50 or PHOT 5, 65A, 65B or instructor’s permission.
Advisory: PHOT 10 or 11.
May be taken 3 times for credit.
2 hours lecture, 3 hours lecture-laboratory, 1.5 hours laboratory.
Organization and assembly of a photographic portfolio from concept to final presentation. Intensive advanced class requiring the student to build a group of photographic works that function both individually and as a group. Concerns will include how to make images that communicate clearly, how to blend technical execution with meaning and how to give and receive feedback to further a photographic project and that of fellow photographers. [Transferability: CSU]

PHOT 57B PROFESSIONAL PRACTICES IN PHOTOGRAPHY 4 Units
Prerequisite: PHOT 1, 2, 50 or PHOT 5, 65A, 65B and PHOT 57A, or instructor’s permission.
Advisory: PHOT 10 or 11.
May be taken 3 times for credit.
2 hours lecture, 3 hours lecture-laboratory, 1.5 hours laboratory.
Development of professional materials such as resume, Web site and business cards as well as finalization of a photographic portfolio to meet the qualifications for an A.A. Degree in Photography. Develop support materials for applications and exhibitions. Student must share work with photography community through exhibition or other methods of display. [Transferability: CSU]

PHOT 63 PHOTOJOURNALISM 4 Units
Prerequisite: PHOT 2.
May be taken 4 times for credit.
2 hours lecture, 3 hours lecture-laboratory, 1.5 hours laboratory.
Introduction in basic skills needed for effective online and print photography for use in newspapers, magazines, web journals and blogs with emphasis on developing appropriate behavior and craft needed in meeting deadlines for photojournalistic publication. Assignments include news photographs, human interest and feature pictures, and the picture story. Special emphasis on print quality, picture editing, layout design, image content and captioning. Introduction to digital capture, preparation of files and transmittal of photographs, and video and sound recording techniques. [Transferability: CSU; UC approval is pending.]

PHOT 65A DIGITAL PHOTOGRAPHY I 4 Units
Advisory: PHOT 1, 5 or equivalent.
May be taken 3 times for credit.
2 hours lecture, 3 hours lecture-laboratory, 1.5 hours laboratory.
Introduction to the tools for expressive communication in digital photography using Adobe Photoshop and Adobe Photoshop Lightroom. Development of skills in image capture, enhancement, printing, and web publishing, for both fine art and commercial applications. [Transferability: CSU; UC approval is pending.]

PHOT 65B DIGITAL PHOTOGRAPHY II 4 Units
Advisory: PHOT 65A or equivalent experience.
May be taken 3 times for credit.
2 hours lecture, 3 hours lecture-laboratory, 1.5 hours laboratory.
Intermediate-level exploration with the tools for expressive communication in digital photography using Adobe Photoshop and Adobe Photoshop Lightroom. Development of skills in image capture, enhancement, printing, and web publishing, for both fine art and commercial applications. [Transferability: CSU; UC approval is pending.]

PHOT 65C DIGITAL PHOTOGRAPHY III 4 Units
Advisory: PHOT 65B or equivalent experience.
May be taken 3 times for credit.
2 hours lecture, 3 hours lecture-laboratory, 1.5 hours laboratory.
Advanced-level exploration with the tools for expressive communication in digital photography using Adobe Photoshop and Adobe Photoshop Lightroom. Development of skills in image capture, enhancement, printing, and web publishing, for both fine art and commercial applications. [Transferability: CSU; UC approval is pending.]

PHOT 68A DARKROOM TOPICS IN PHOTOGRAPHY 1 Unit
Advisory: PHOT 1 or 5.
May be taken 6 times for credit.
2 hours lecture-laboratory.
Investigation of a specific aspect or topic of photography through discussion and demonstration by the instructor(s). [Transferability: CSU]

PHOT 68B DIGITAL TOPICS IN PHOTOGRAPHY 1 Unit
Advisory: PHOT 1 or 5.
May be taken 6 times for credit.
2 hours lecture-laboratory.
Investigation of a specific aspect or topic of photography through discussion and demonstration by the instructor(s). [Transferability: CSU]

PHOT 68C STUDIO LIGHTING TOPICS IN PHOTOGRAPHY 1 Unit
Advisory: PHOT 1 or 5.
May be taken 6 times for credit.
2 hours lecture-laboratory.
Investigation of a specific aspect or topic of photography through discussion and demonstration by the instructor(s). [Transferability: CSU]
PHOT 68D EXPERIMENTAL TOPICS IN PHOTOGRAPHY 1 Unit
Advisory: PHOT 1 or 5.
May be taken 6 times for credit.
2 hours lecture-laboratory.
Investigation of a specific aspect or topic of photography through discussion and demonstration by the instructor(s). [Transferability: CSU]

PHOT 68E LECTURE TOPICS IN PHOTOGRAPHY 1 Unit
Advisory: PHOT 1 or 5.
May be taken 6 times for credit.
2 hours lecture-laboratory.
Investigation of a specific aspect or topic of photography through discussion and demonstration by the instructor(s). [Transferability: CSU]

PHOT 68F EXHIBITION TOPICS IN PHOTOGRAPHY 1 Unit
Advisory: PHOT 1 or 5.
May be taken 6 times for credit.
2 hours lecture-laboratory.
Investigation of a specific aspect or topic of photography through discussion and demonstration by the instructor(s). [Transferability: CSU]

PHOT 70 INTRODUCTION TO COLOR PHOTOGRAPHY 4 Units
Prerequisite: PHOT 2.
May be taken 3 times for credit.
2 hours lecture, 3 hours lecture-laboratory, 1.5 hours laboratory.
Introduction to color transparencies, types of transparency films; contrast control and color balance; projection of color slides as a series and as multi-image presentations; making color enlargements from transparencies. Introduction to printing color negatives, including various controls on exposure, developing and printing. Theory and principles of three-color photography, including densitometry as related to evaluation of negatives and selection of proper filtration. [Transferability: UC/CSU]

PHOT 71 THE PHOTOGRAPHIC BOOK 4 Units
Prerequisite: PHOT 1 or 5 or 65A or equivalent experience.
May be taken 3 times for credit.
2 hours lecture, 3 hours lecture-laboratory, 1.5 hours laboratory.
Exploration of the book for the display and sharing of photographic imagery including the history of the photographic book and its uses in fine art, commercial and documentary photography. Use of appropriate technology for creation of photographic books including digital image editing, color correction, graphic design and typography. Investigation of sequencing and presentation of photographs in book format for communication. [Transferability: CSU]

PHOT 72 DIGITAL CAMERA TECHNIQUE 4 Units
Prerequisite: PHOT 5, 65A or equivalent experience.
2 hours lecture, 3 hours lecture-laboratory, 1.5 hours laboratory.
Exploration of the digital camera in multiple formats. Understanding the current tools and develop skill in imagemaking in the digital realm. Issues unique to the digital process including workflow, archiving, image resolution as well as basic photographic concerns such as composition and visual communication will be explored. [Transferability: CSU]

PHOT 74 STUDIO PHOTOGRAPHY TECHNIQUES 4 Units
Prerequisite: PHOT 2.
May be taken 3 times for credit.
2 hours lecture, 3 hours lecture-laboratory, 1.5 hours laboratory.
Introduction and overview to large format (view camera), digital medium format cameras, and studio lighting; exploration of photographic practices in a studio environment; emphasis on developing effective skills and techniques necessary to begin a career in studio photography. [Transferability: CSU]

PHOT 78A LANDSCAPE FIELD STUDY IN PHOTOGRAPHY 1 Unit
Advisory: PHOT 1 or 5.
May be taken 6 times for credit.
2 hours lecture-laboratory.
Investigation of a specific aspect or topic of photography through discussion and demonstration by the instructor(s) in the field. [Transferability: CSU]

PHOT 78B SOCIAL CONCERNS FIELD STUDY IN PHOTOGRAPHY 1 Unit
Advisory: PHOT 1 or 5.
May be taken 6 times for credit.
2 hours lecture-laboratory.
Investigation of a specific aspect or topic of photography through discussion and demonstration by the instructor(s) in the field. [Transferability: CSU]

PHOT 78C DOCUMENTARY FIELD STUDY IN PHOTOGRAPHY 1 Unit
Formerly: PHOT 78
Advisory: PHOT 1 or 5.
May be taken 6 times for credit.
2 hours lecture-laboratory.
Investigation of a specific aspect or topic of photography through discussion and demonstration by the instructor(s) in the field. [Transferability: CSU]

PHOT 78D MUSEUM/GALLERY FIELD STUDY IN PHOTOGRAPHY 1 Unit
Formerly: PHOT 78
Advisory: PHOT 1 or 5.
May be taken 6 times for credit.
2 hours lecture-laboratory.
Investigation of a specific aspect or topic of photography through discussion and demonstration by the instructor(s) in the field. [Transferability: CSU]

PHOT 78E TECHNIQUES FIELD STUDY IN PHOTOGRAPHY 1 Unit
Formerly: PHOT 78
Advisory: PHOT 1 or 5.
May be taken 6 times for credit.
2 hours lecture-laboratory.
Investigation of a specific aspect or topic of photography through discussion and demonstration by the instructor(s) in the field. [Transferability: CSU]

PHOT 150 PHOTOGRAPHY .5 Unit
PHOT 150X PRODUCTION LABORATORY 1 Unit
PHOT 150Y 2 Units
PHOT 150Z 3 Units
Corequisite: Concurrent enrollment in a photography course requiring laboratory access.
Any combination of PHOT 150, 150X, 150Y or 150Z may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit.
2 hours laboratory for each .5 unit of credit.
Supervised use of photographic studio and darkroom equipment for projects assigned in still photography courses, including basic, intermediate, advanced, color, and special project courses. Hours to be arranged within scheduled availability of photography department open facilities.
### PHYSICAL EDUCATION

**Physical Education**  
(650) 949-7742  
www.foothill.edu/ath/

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>PHED 1</td>
<td>INTRODUCTION TO PHYSICAL EDUCATION AS A PROFESSION</td>
<td>4</td>
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<tr>
<td>PHED 2</td>
<td>SPORT IN SOCIETY</td>
<td>4</td>
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<tr>
<td>PHED 3</td>
<td>THEORIES &amp; TECHNIQUES OF COACHING SPORTS</td>
<td>4</td>
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<tr>
<td>PHED 4</td>
<td>CONCEPTS OF PHYSICAL FITNESS &amp; WELLNESS</td>
<td>4</td>
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<tr>
<td>PHED 5</td>
<td>FUNDAMENTALS OF HATHA YOGA</td>
<td>4</td>
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<tr>
<td>PHED 6</td>
<td>PERFORMANCE ENHANCING SUBSTANCES IN SPORT &amp; EXERCISE</td>
<td>4</td>
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<tr>
<td>PHED 7</td>
<td>THEORY &amp; Concepts of Exercise Physiology</td>
<td>4</td>
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<tr>
<td>PHED 8</td>
<td>BASIC NUTRITION FOR SPORTS &amp; FITNESS</td>
<td>4</td>
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<tr>
<td>PHED 9</td>
<td>PERFORMANCE ENHANCING SUBSTANCES IN SPORT &amp; EXERCISE</td>
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<tr>
<td>PHED 10A</td>
<td>AQUATICS: LEVEL I, BEGINNING SWIMMING</td>
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<tr>
<td>PHED 10B</td>
<td>AQUATICS: LEVEL II, INTERMEDIATE SWIMMING</td>
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<tr>
<td>PHED 10C</td>
<td>AQUATICS LEVEL III, MASTERS SWIMMING/ADVANCED SWIM TRAINING</td>
<td>1</td>
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<tr>
<td>PHED 11A</td>
<td>WATER EXERCISE</td>
<td>1</td>
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All courses on this page are Title 5 degree applicable credit courses unless otherwise noted.  
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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>PHED 11B</td>
<td>AQUATIC FITNESS</td>
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<td></td>
<td>May be taken 6 times for credit.</td>
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<td></td>
<td>3 hours laboratory.</td>
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<td></td>
<td>An aerobic water fitness program applying the basic principles of exercise and dynamics of water movement. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]</td>
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<td>PHED 13A</td>
<td>INTERMEDIATE/ADVANCED WATER POLO</td>
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<td>Formerly: H P 8A</td>
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<td>May be taken 6 times for credit.</td>
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<td>3 hours laboratory.</td>
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<td></td>
<td>Intermediate/advanced water polo for competitive play. Includes offensive and defensive drills, strategies, and techniques. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]</td>
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<td>PHED 17A</td>
<td>BEGINNING KARATE</td>
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<td>Formerly: H P 84X</td>
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<td>May be taken 6 times for credit.</td>
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<td>3 hours laboratory.</td>
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<td></td>
<td>Introduction to beginning skills and techniques of karate. Includes punching, blocking, striking and kicking techniques. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]</td>
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<tr>
<td>PHED 17B</td>
<td>INTERMEDIATE KARATE</td>
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<td>Formerly: H P 84A</td>
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<td></td>
<td>Prerequisite: PHED 17A or equivalent.</td>
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<td>May be taken 6 times for credit.</td>
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<td>3 hours laboratory.</td>
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<td></td>
<td>Intermediate karate skills and techniques. Analysis and application of biomechanics, individual and group interaction, and uses of Karate. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]</td>
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<tr>
<td>PHED 19A</td>
<td>FUNDAMENTALS OF TAI CHI</td>
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<td>Formerly: H P 83</td>
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<td>May be taken 6 times for credit.</td>
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<td>3 hours laboratory.</td>
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<td></td>
<td>Introduction to the internal martial art of Tai Chi. Includes practice and discussion of fundamental Tai Chi exercises and its relationship to mind-body awareness. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]</td>
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<tr>
<td>PHED 19B</td>
<td>KICKBOXING FOR FITNESS</td>
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<td>May be taken 3 times for credit.</td>
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<td>3 hours laboratory.</td>
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<td></td>
<td>Introduction to the basic skills and mechanics of kickboxing for fitness. Total cardiovascular workout emphasizing footwork, body mechanics, punching and kicking combinations and basic offensive and defensive techniques. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]</td>
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<td>PHED 20A</td>
<td>BEGINNING MAT PILATES</td>
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<td>May be taken 6 times for credit.</td>
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<td>3 hours laboratory.</td>
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<td></td>
<td>Traditional Mat Pilates exercises and principles are combined to achieve body control, core strength and joint mobility. Students must provide their own fitness mat. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]</td>
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<tr>
<td>PHED 20B</td>
<td>INTERMEDIATE MAT PILATES</td>
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<td>May be taken 6 times for credit.</td>
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<td>3 hours laboratory.</td>
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<td>An intermediate level mat Pilates class focusing on fluid transitions between stretching and strengthening exercises to improve coordination, endurance, posture, flexibility and balance for a more streamlined shape. Students provide their own fitness mat. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]</td>
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<td>PHED 21A</td>
<td>BEGINNING HATHA YOGA</td>
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<td>Formerly: H P 84X</td>
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<td>May be taken 6 times for credit.</td>
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<td>3 hours laboratory.</td>
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<td></td>
<td>Introduction to the discipline of yoga. Emphasis on the practice and demonstration of the beginning postures and the usage of yoga for stress management and exercise. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]</td>
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<td>PHED 21B</td>
<td>INTERMEDIATE HATHA YOGA</td>
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<td>Formerly: H P 84X</td>
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<td></td>
<td>Advisory: Some beginning Hatha yoga.</td>
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<td>May be taken 6 times for credit.</td>
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<td>3 hours laboratory.</td>
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<td></td>
<td>Intermediate training in Hatha yoga, skills and techniques; independent, group, and personalized training; emphasis on asana practice and pranayama. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]</td>
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<td>PHED 21C</td>
<td>POWER YOGA</td>
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<td>Formerly: H P 44P</td>
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<td>May be taken 6 times for credit.</td>
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<td>3 hours laboratory.</td>
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<td>Power Yoga is a combination of the traditional forms of yoga woven into one powerful all-inclusive practice. Postures are combined into a vigorous, flowing series, linking one movement to the next, building strength, flexibility, and endurance. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]</td>
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<td>PHED 21D</td>
<td>VINYASA FLOW YOGA</td>
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<td>3 hours laboratory.</td>
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<td>Vinyasa yoga is a form of traditional hatha yoga that focuses on integrating breath and movement, awareness and alignment, strength, and flexibility. Vinyasa uses six discrete series of sequences of advancing difficulty with repeated closing sections between each sequence. Each variation is linked to the next one by a succession of specific transitional movements. Likened to a dynamic dance, postures or asanas are connected through the breath for a transformative and balancing effect. The Vinyasa practice ranges from slow flowing to fast aerobic, developing strength and endurance. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]</td>
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<td>PHED 22</td>
<td>FULL BODY FLEXIBILITY</td>
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<td>3 hours laboratory.</td>
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<td>Increased flexibility enhances physical performance, helps maintain muscle fitness and assists in injury rehabilitation. This course is designed for individuals with a variety of fitness experience levels. Students must provide their own fitness mat. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]</td>
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<td>PHED 22A</td>
<td>STRETCHING &amp; PILATES FOR FLEXIBILITY</td>
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<td>May be taken 6 times for credit.</td>
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<td>3 hours laboratory.</td>
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<td>A stretching program emphasizing seated flexibility exercises for the hips, hamstrings and spine. Complimentary abdominal exercises and standing postures will be introduced to develop balance, tone and endurance. Students must provide their own fitness mat. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]</td>
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</tbody>
</table>
PHED 22B  PILATES & YOGA  1 Unit
May be taken 6 times for credit.
3 hours laboratory.
This class combines basic Pilates mat exercises to strengthen abdominals
with full body-yoga based stretches for development of improved posture,
flexibility, and relaxation. Students must provide their own fitness mat. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]

PHED 22C  CORE FLOW STRENGTH  1 Unit
Formerly: H P 32F
May be taken 6 times for credit.
3 hours laboratory.
A combination Pilates and Yoga class designed to improve strength,
body control, and coordination. Resistance and stability equipment
will be incorporated with abdominal, low back, and full body exercises.
Students must provide their own fitness mat. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]

PHED 23A  TRAIL HIKING  1 Unit
May be taken 6 times for credit.
3 hours laboratory.
This course will provide students the opportunity to exercise in the great
outdoors to gain and improve cardiovascular fitness, muscular strength
and endurance through hiking at a fitness pace on the trail. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]

PHED 23B  DAY HIKING  1 Unit
May be taken 6 times for credit.
3 hours laboratory.
A hiking class designed to prepare healthy, fit individuals for a final 8–12
mile hike on established trails over moderate to steep terrain. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]

PHED 23C  MULTI-DAY HIKING  2 Units
May be taken 6 times for credit.
6 hours laboratory.
Emphasis on preparing fit individuals for a final two-day hike of up to
10-miles each day over moderate to steep terrain. Basic outdoor skills such
as fitness development, risk management, trip planning and minimum
impact will be identified. (Transportation, equipment and any park fees
are provided by the student.) [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]

PHED 24  INTRODUCTION TO GOLF  1 Unit
May be taken 6 times for credit.
3 hours laboratory.
This course teaches the fundamentals of the golf swing, knowledge of
equipment, terminology and course etiquette. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]

PHED 24A  SKILL DEVELOPMENT FOR THE EXPERIENCED GOLFER  1 Unit
May be taken 6 times for credit.
3 hours laboratory.
Development of golf skills for the intermediate player including grip,
posture and swing fundamentals, selection of equipment, rule
interpretations, etiquette and course management. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]

PHED 24B  SKILLS OF GOLF COURSE PLAY  2 Units
Formerly: H P 25DX
May be taken 6 times for credit.
6 hours laboratory.
Students will play an 18 hole golf course and utilize the knowledge and
skills developed in beginning and intermediate golf classes. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]

PHED 25A  SWING ANALYSIS  1 Unit
May be taken 6 times for credit.
3 hours laboratory.
Using the Swing Solutions video technology, the student will identify
and correct individual golf swing flaws and design drills to develop
skills to improve golf strokes. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]

PHED 26  BEGINNING TENNIS SKILLS  1 Unit
May be taken 6 times for credit.
3 hours laboratory.
Introduction to beginning tennis play including basic strokes, drills,
rules and etiquette. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]

PHED 26A  INTERMEDIATE/ADVANCED TENNIS  1 Unit
May be taken 6 times for credit.
3 hours laboratory.
Intermediate/advanced tennis for competitive play includes covering
drills, advanced strategies, techniques and rules. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]

PHED 27  WALK FOR HEALTH  1 Unit
Formerly: H P 16
May be taken 6 times for credit.
3 hours laboratory.
Introduction to fitness walking. Includes basic principles of exercise and
how they relate to fitness walking. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]

PHED 27A  RUN FOR FITNESS  1 Unit
Formerly: H P 61
May be taken 6 times for credit.
3 hours laboratory.
The student will gain an appreciation for all phases of running, improve
cardiovascular fitness, increase flexibility, develop endurance, and gain
an understanding of the physiologic responses of the body to running.
[Foothill GE: Lifelong Understanding; Transferability: UC/CSU]

PHED 28  SLOW PITCH SOFTBALL  1 Unit
Formerly: H P 28
May be taken 6 times for credit.
3 hours laboratory.
Coeducational softball games with instruction in throwing, fielding and
hitting. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]

PHED 29  FUTSAL-INDOOR SOCCER  1 Unit
May be taken 6 times for credit.
3 hours laboratory.
Indoor soccer class developing basic skills including passing, shooting,
dribbling and heading. Includes game strategy, tactics, and laws of the
game. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]

PHED 29A  TOURNAMENT SOCCER  1 Unit
Formerly: H P 129
Advisory: Previous intercollegiate or club soccer play.
May be taken 6 times for credit.
3 hours laboratory.
Participation in tournament soccer competition at an intermediate
and advanced level of play. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]

PHED 30  WINTER SPORTS CONDITIONING  1 Unit
May be taken 6 times for credit.
4 hours laboratory.
Course designed to develop physical conditioning level for safe and
pleasurable winter sports activity. Exercise will be geared toward
developing flexibility, strength and aerobic endurance. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]
PHED 34A INTERCOLLEGIATE SOCCER (WOMEN) 3 Units
Formerly: H P 35B
May be taken 6 times for credit.
14.5 hours lecture-laboratory.
Competitive intercollegiate soccer working toward personal development, athletic scholarship, and career opportunities. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]

PHED 34B INTERCOLLEGIATE VOLLEYBALL (WOMEN) 3 Units
Formerly: H P 35C
May be taken 6 times for credit.
14.5 hours lecture-laboratory.
Competitive intercollegiate volleyball working toward personal development, athletic scholarship, and career opportunities. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]

PHED 34C INTERCOLLEGIATE BASKETBALL (WOMEN) 3 Units
Formerly: H P 35D
May be taken 6 times for credit.
14.5 hours lecture-laboratory.
Competitive intercollegiate women's basketball working toward personal development, athletic scholarship, and career opportunities. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]

PHED 34D INTERCOLLEGIATE TENNIS (WOMEN) 3 Units
Formerly: H P 35E
May be taken 6 times for credit.
14.5 hour lecture-laboratory.
Competitive intercollegiate tennis working toward personal development, athletic scholarship, and career opportunities. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]

PHED 34E INTERCOLLEGIATE SOFTBALL (WOMEN) 3 Units
Formerly: H P 35F
Advisory: Previous high school, club or collegiate softball playing experience.
May be taken 6 times for credit.
14.5 hours lecture-laboratory.
Competitive intercollegiate softball for experienced female athletes. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]

PHED 34F INTERCOLLEGIATE GOLF (WOMEN) 3 Units
Formerly: H P 35G
May be taken 6 times for credit.
15 hours lecture-laboratory.
Intercollegiate development of athletic skills, physical and mental conditioning for competitive play in golf. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]

PHED 34G INTERCOLLEGIATE DANCE PERFORMANCE
Formerly: H P 40P
Advisory: PHED 34G and DANC 11 are interchangeable.
May be taken 6 times for credit.
15 hours laboratory.
Supervised participation in scheduled productions of the dance department, in cast or crew. A laboratory course for the resident and touring company of the college, including instruction on the how-to of a full-scale theatrical production for public performance. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]

PHED 34H PRE-SEASON CONDITIONING 2 Units
Formerly: H P 35K
May be taken 6 times for credit.
6 hours lecture-laboratory.
A continuation in the development of athletic skills, physical and mental conditioning which is required to be successful in intercollegiate athletics. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]

PHED 34J SPORTS TECHNIQUES & CONDITIONING 2 Units
Formerly: PHED 601
May be taken 6 times for credit.
6 hours laboratory.
This course is designed to teach and practice sport specific techniques and conditioning including drills, weight and flexibility training, and cardio-respiratory development. [Transferability: CSU; UC approval is pending.]

PHED 35A INTERCOLLEGIATE SOCCER (MEN) 3 Units
Formerly: H P 40B
May be taken 6 times for credit.
14.5 hours lecture-laboratory.
Competitive intercollegiate soccer working toward personal development, athletic scholarship and career opportunities. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]

PHED 35B INTERCOLLEGIATE FOOTBALL (MEN) 3 Units
Formerly: H P 40C
May be taken 6 times for credit.
14.5 hours lecture-laboratory.
Competitive intercollegiate football working toward personal development, athletic scholarship and career opportunities. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]

PHED 35C INTERCOLLEGIATE TENNIS (MEN) 3 Units
Formerly: H P 40D
May be taken 6 times for credit.
14.5 hours lecture-laboratory.
Competitive intercollegiate tennis working toward personal development, athletic scholarship and career opportunities. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]

PHED 35D INTERCOLLEGIATE BASKETBALL (MEN) 3 Units
Formerly: H P 40E
May be taken 6 times for credit.
14.5 hours lecture-laboratory.
Competitive intercollegiate basketball working toward personal development, athletic scholarship and career opportunities. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]

PHED 35E INTERCOLLEGIATE GOLF (MEN) 3 Units
Formerly: H P 40G
May be taken 4 times for credit.
14.5 hours lecture-laboratory.
Competitive intercollegiate golf working toward skill development, athletic scholarship and career opportunities. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]

PHED 35F INTERCOLLEGIATE SWIMMING (MEN & WOMEN) 3 Units
Formerly: H P 40H
May be taken 6 times for credit.
14.5 hours lecture-laboratory.
Competitive intercollegiate swimming program for student athletes working on skill development, athletic scholarship and career opportunities. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]

PHED 35G INTERCOLLEGIATE WATER POLO 3 Units
Formerly: H P 40K
May be taken 6 times for credit.
14.5 hours lecture-laboratory.
Competitive intercollegiate water polo working toward personal development, athletic scholarship and career opportunities. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]
PHED 36  INDOOR ARCHERY  1 Unit
Formerly: H P 23A
May be taken 6 times for credit.
3 hours laboratory.
Introduction to the sport of archery. Emphasis will be placed on instinctive
shooting, scoring, terminology, safety and etiquette. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]

PHED 37  BADMINTON: SINGLES & DOUBLES  1 Unit
May be taken 6 times for credit.
3 hours laboratory.
Strategy and competition for both singles and doubles in badminton play. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]

PHED 38A  BASKETBALL FUNDAMENTALS  1 Unit
May be taken 6 times for credit.
3 hours laboratory.
An introduction to the fundamental skills and strategies of the team sport
of basketball. Skill work drills and full-court tournament play. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]

PHED 38B  BASKETBALL GAME SKILLS  1 Unit
May be taken 6 times for credit.
3 hours laboratory.
Tournament play plus an individual emphasis on intermediate skill
development and the techniques of team play. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]

PHED 39  INDOOR SOCCER  1 Unit
Formerly: H P 29A
May be taken 6 times for credit.
3 hours laboratory.
Introduction in the fundamental skills and strategies for indoor soccer.
Includes rules and an opportunity for active participation in game
situations. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]

PHED 40  BEGINNING VOLLEYBALL  1 Unit
Formerly: H P 30
May be taken 6 times for credit.
3 hours laboratory.
Introduction to the game of volleyball. Includes basic skills, strategy, and
team play. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]

PHED 41  INDOOR CYCLING-SPIN  1 Unit
Formerly: H P 46B
May be taken 6 times for credit.
3 hours laboratory.
An indoor cycling program to enhance cardiovascular fitness and
improve cycling techniques. Emphasis will be on improving endurance
through non-impact activity. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]

PHED 42  BOWLING FOR FITNESS  1 Unit
May be taken 6 times for credit.
3 hours laboratory.
A comprehensive study of the physical skills and practice for lifetime
enjoyment of bowling. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]

PHED 45  FITNESS FOR LIFE  1 Unit
PHED 45X  2 Units
May be taken 6 times for credit.
3 hours laboratory for each unit of credit.
The course is designed to increase muscle strength, endurance and
cardiovascular fitness through self paced program of use on cardio
strength and fitness machines. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]

PHED 46  WEIGHT LIFTING FOR HEALTH & FITNESS  1 Unit
May be taken 6 times for credit.
3 hours laboratory.
This course will provide training and instruction on the use of weights for
lifetime fitness and health. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]

PHED 46A  CORE FLOW STRENGTH TRAINING  1 Unit
May be taken 6 times for credit.
3 hours laboratory.
A total body conditioning class that emphasizes intense free weight
exercises set to music and incorporates core conditioning. Featured
equipment includes dumbbells, body bar, resistance bands, body weight
and balls. Students must provide their own fitness mat. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]

PHED 47B  THIGHS, ABS & GLUTEUS (TAG)  1 Unit
Formerly: H P 32G
May be taken 6 times for credit.
3 hours laboratory.
This course is designed to strengthen thigh, abdominal and gluteus
muscles in an intensive, fun and highly energized workout. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]

PHED 47C  CARDIO PUMP  1 Unit
Formerly: H P 14F
May be taken 6 times for credit.
3 hours laboratory.
An intense total body workout designed to improve endurance and
strengthen and define every muscle in every way. Students must
provide their own fitness mat. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]

PHED 49A  SURVIVOR TRAINING  1 Unit
Formerly: H P 16D
May be taken 6 times for credit.
3 hours laboratory.
Designed for average group exercise participant, the class uses sports
fitness drills and functional training to develop footwork, anaerobic
and aerobic conditioning, muscular strength and power. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]

PHED 49B  BOOT CAMP TRAINING  3 Units
Formerly: H P 3C
May be taken 6 times for credit.
3 hours laboratory.
This course is designed for students who want an annual program in
which group training uses functional fitness activities to develop core
strength, cardiovascular conditioning and muscle strength and power. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]

PHED 50C  NUTRITIONAL ASSESSMENT & FITNESS  1 Unit
May be taken 6 times for credit.
3 hours laboratory.
A study of nutritional concepts, body fat assessment and work-out
programs for lifetime fitness [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]

PHED 52  YEARLONG GOLF  3 Units
May be taken 6 times for credit.
3 hours laboratory.
Development of golf skills and play for both the beginning and
intermediate golfer. This class is continued for three academic
quarters, fall, winter and spring. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]
PHED 53 HEALTH & FITNESS ACTIVITIES 3 Units
May be taken 6 times for credit.
9 hours laboratory.
Year long course designed to develop and increase health and fitness using cardio, strength and flexibility training. [Foothill GE: Lifelong Understanding; Transferability: UC/CSU]

PHED 60 SPECIAL PROJECTS IN PHYSICAL EDUCATION 2 Units
Formerly: HP 60
May be taken 6 times for credit.
6 hours lecture-laboratory.
Individual development of special projects, materials and activities related to physical education and athletics. [Transferability: CSU]

PHED 62A CLINICAL EXPERIENCES IN SPORTS 3 Units
Formerly: HP 52A
Corequisite: Completion of, or concurrent enrollment in PHED 67 series or equivalent or instructor authorization.
May be taken 3 times for credit.
9 hours laboratory
Hands-on experience in athletic emergency care, athletic injury prevention, therapeutic treatment, and rehabilitation of athletic injuries in the on-campus Athletic Treatment Center. Observation of orthopedic surgical procedures with the permission of the team physician is available. [Transferability: CSU]

PHED 62B CLINICAL EXPERIENCES IN SPORTS 3 Units
Formerly: HP 52B
Corequisite: Completion of, or concurrent enrollment in PHED 67 series or equivalent or instructor authorization.
May be taken 3 times for credit.
9 hours laboratory
Hands-on experience in athletic emergency care, athletic injury prevention, therapeutic treatment, and rehabilitation of athletic injuries in the on-campus Athletic Treatment Center. Observation of orthopedic surgical procedures with the permission of the team physician is available. [Transferability: CSU]

PHED 62C CLINICAL EXPERIENCES IN SPORTS 3 Units
Formerly: HP 52C
Prerequisite: PHED 62A and 62B.
Corequisite: Completion of, or concurrent enrollment in PHED 67 series or equivalent.
May be taken 3 times for credit.
9 hours laboratory
Hands-on experience in emergency care, injury prevention, treatment and rehabilitation of athletic injuries in the on-campus Athletic Treatment Center. Off-campus athletic training facilities and outpatient physical therapy clinics may also be utilized for the internship. Observation of orthopedic surgical procedures with the permission of the team physician is available. [Transferability: CSU]

PHED 62D CLINICAL EXPERIENCES IN SPORTS 3 Units
Formerly: HP 52D
Prerequisite: PHED 62A, 62B and 62C.
Corequisite: Completion of, or concurrent enrollment in PHED 67 series or equivalent.
May be taken 3 times for credit.
9 hours laboratory
Hands-on experience in emergency care, injury prevention, treatment and rehabilitation of athletic injuries in the on-campus Athletic Treatment Center. Off-campus athletic training facilities and outpatient physical therapy clinics may be utilized for the internship. Observation of orthopedic surgical procedures with the permission of the team physician is available. [Transferability: CSU]

PHED 62E CLINICAL EXPERIENCES IN SPORTS 3 Units
Formerly: HP 52E
Prerequisite: PHED 62A, 62B, 62C and 62D.
Corequisite: Completion of, or concurrent enrollment in PHED 67 series or equivalent.
May be taken 3 times for credit.
9 hours laboratory.
Advanced experience in athletic emergency care, athletic injury prevention, therapeutic treatment, and rehabilitation of athletic injuries. Observation of orthopedic surgeries, assisting in physical therapy clinics or related allied health settings compliment the on-campus Athletic Treatment Center. [Transferability: CSU]

PHED 65A PNF: INTRODUCTION TO THE UPPER EXTREMITY 3 Units
Formerly: HP 52F
2 hours lecture, 1 hour laboratory, 1 hour online.
Theory and hands on practice emphasizing the upper extremity: stretching, strengthening, stabilization and active/passive range of motion including goniometric measurements. Students must have reliable and ongoing Internet access to complete Quizzes, Discussions and Assignments. [Transferability: CSU]

PHED 65B PNF: INTRODUCTION TO THE LOWER EXTREMITY 3 Units
Formerly: HP 52G
2 hours lecture, 1 hour laboratory, 1 hour online.
Theory and hands on practice emphasizing lower extremity stretching, strengthening, stabilization and active range of motion including goniometric measurement. Students must have reliable and ongoing Internet access to complete Quizzes, Discussions and Assignments. [Transferability: CSU]

PHED 66 FIRST AID & CPR/AED 2 Units
Formerly: HP 51C
May be taken 6 times for credit.
1 hour lecture, 3 hours laboratory.
This course is designed to provide the layperson with the knowledge and skills to respond to an emergency. The course will provide certification opportunity in First Aid and CPR/AED as well as Professional Rescuer. [Transferability: CSU]

PHED 67A PREVENTION OF ATHLETIC INJURIES 3 Units
Formerly: HP 67A
Advisory: Not open to students with credit in HP 67A.
2 hours lecture, 1 hour laboratory, 1 hour online.
Athletic injury prevention is emphasized through pre-participation physical exams, exercise programs, preventative taping, proper fitting of equipment, and protective braces. Students must have reliable and ongoing Internet Access to complete Quizzes, Discussions and Assignments. [Transferability: UC/CSU]

PHED 67B EMERGENCY ATHLETIC INJURY CARE 3 Units
Formerly: HP 67B
Advisory: Not open to students with credit in HP 67B.
2 hours lecture, 1 hour laboratory, 1 hour online.
American Red Cross Standard First Aid/CPR certificates are available upon completion of the course. Lecture and laboratory are devoted to basic injury recognition and emergency response of acute trauma. Practical hands-on skills are emphasized in laboratories. Students must have reliable and ongoing Internet access to complete Quizzes, Discussions and Assignments. [Transferability: UC/CSU]

PHED 67C TREATMENT & REHABILITATION OF ATHLETIC INJURIES 3 Units
Formerly: HP 67C
Advisory: Not open to students with credit in HP 67C.
2 hours lecture, 1 hour laboratory, 1 hour online.
Follow-up injury treatment, phases of tissue healing, and stages of rehabilitation including therapeutic modalities. Students must have reliable and ongoing Internet Access to complete Quizzes, Discussions and Assignments. [Transferability: UC/CSU]
PHED 73  INTERNSHIP FOR PERSONAL TRAINING  2 Units
May be taken 2 times for credit.
6 hours laboratory.
Internship program designed to provide personal fitness trainers with the practical hands-on skills to gain valuable experience with the students at Fitness Centers. Includes conducting assessments of fitness, prescribing appropriate physical exercises, and safely instructing students in the step-by-step procedures of how to execute strength, cardiovascular, and flexibility exercises. [Transferability: CU/CSU]

PHED 601  SPORTS TECHNIQUES & CONDITIONING  2 Units
May be taken 6 times for credit.
6 hours laboratory.
This course is designed to teach and practice sport specific techniques and conditioning including drills, weight and flexibility training, and cardio-respiratory development.

PHYSICAL SCIENCES & ENGINEERING

Physical Sciences, Mathematics & Engineering  (650) 949-7259 www.foothill.edu

PSE 41  CLASS PRACTICES: MIDDLE SCHOOL SCIENCE  2 Units
Formerly: CHEM 41
Prerequisite: Satisfactory score on the mathematics placement test or MATH 104 or 105; college level chemistry or physics course; recommendation from a math, physics, or chemistry faculty and approval by the instructor; will require a current TB test, finger printing, and background investigation.
Advisory: ENGL 100 or ESLL 25; Pass/No Pass; not open to students with credit in CHEM 41.
1.5 hours lecture, 2 hours laboratory.
Introduce prospective science, technology, engineering, and mathematics (STEM) teachers to the field of middle school education and the teaching and learning of science in middle school classrooms. Pairs of students are placed in local middle school classrooms to observe, participate, and assist a mentor teacher in instruction. Students also participate in the weekly seminar and discussion of learning in middle school culture, cognitive development of students, and best means to teach appropriate science concepts at this level. Foothill students are expected to work a minimum of 20 hours (2 hrs/week x 10 weeks; will be adjusted for middle school calendar as required) in the middle school classroom during the quarter. Introduced to the concepts that as classroom assistants or teachers, they are role models to the elementary students and there is a large responsibility inherent in assuming this role. Support creating a respectful and inclusive classroom atmosphere where children learn most effectively. [Transferability: UC/CSU]

PSE 42  CLASS PRACTICES; ELEMENTARY SCHOOL SCIENCE  2 Units
Formerly: CHEM 42
Prerequisite: Satisfactory score on the mathematics placement test or MATH 104 or 105; college level chemistry or physics course; recommendation from a math, physics, or chemistry faculty and approval by the instructor; will require a current TB test, finger printing, and background investigation.
Advisory: ENGL 100 or ESLL 25; Pass/No Pass; not open to students with credit in CHEM 42.
1.5 hours lecture, 2 hours laboratory.
Introduce prospective science, technology, engineering, and mathematics (STEM) teachers to the field of elementary school education and the teaching and learning of science in elementary school classrooms. Pairs of students are placed in local elementary school classrooms to observe, participate, and assist a mentor teacher in instruction. Students also participate in the weekly seminar and are introduced to inquiry-based learning practices, National and California standards, reading and learning differences in children and the cognitive ability of elementary age children as it relates to the introduction of concepts, curricular planning, classroom management, and learning assessment. Foothill students are expected to work a minimum of 20 hours (2 hrs/week x 10 weeks; will be adjusted for elementary school calendar as required) in the elementary school classroom during the quarter. Introduced to the concepts that as classroom assistants or teachers, they are role models to the elementary students and there is a large responsibility inherent in assuming this role. Support creating a respectful and inclusive classroom atmosphere where children learn most effectively. [Transferability: UC/CSU]

PSE 43  CLASS PRACTICES: HIGH SCHOOL SCIENCE  2 Units
Prerequisite: Satisfactory score on the mathematics placement test or MATH 105; college level chemistry or physics course; recommendation from a math, physics, or chemistry faculty and approval by the instructor; will require a current TB test, finger printing, and background investigation.
Advisory: ENGL 100 or ESLL 25; Pass/No Pass.
May be taken 2 times for credit.
1.5 hours lecture, 2 hours laboratory.
Introduce prospective science, technology, engineering, and mathematics (STEM) teachers to the field of high school education and the teaching and learning of science in high school classrooms. Students are placed in local high school classrooms to observe, participate, and assist a mentor teacher in instruction. Students also participate in the weekly seminar and discussion of learning in K–12 culture, cognitive development of students, and best means to teach appropriate science concepts at this level. Foothill students are expected to work a minimum of 20 hours (2 hrs/week x 10 weeks; will be adjusted for K–12 calendar as required) in the high school classroom during the quarter. Introduced to the concepts that as classroom assistants or teachers, they are role models to the K–12 students and there is a large responsibility inherent in assuming this role. Support creating a respectful and inclusive classroom atmosphere where children learn most effectively. [Transferability: UC/CSU]

PSE 301  CAREER DEVELOPMENT THROUGH SCHOOL SCIENCE  0.5 Units
PSE 301X  CLASSROOM OBSERVATIONS  1 Unit
PSE 301Y  1.5 Units
PSE 301Z  2 Units
Non-degree applicable credit course.
Any combination of PSE 301–301Z may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit.
1.5 hours laboratory for each .5 unit of credit.
Students will refresh and develop their outlook on teaching and learning by observing exemplary faculty in a classroom setting. Students will also review the syllabus of any observed class for further insights. The faculty to be observed must first give their permission prior to the observation. Additionally, students must submit a schedule of classes to be observed to the instructor of record that detail the required 6 hours of classroom observation for each .5 unit of credit.

PSE 302  PEDAGOGICAL LEADERSHIP  1 Unit
Non-degree applicable credit course.
May be taken 6 times for credit.
1 hour lecture.
Leadership or pedagogical styles appropriate for Physical Science, Mathematics and Engineering courses. Specific topics to be determined by instructor.
PHYSICS

Physical Sciences, Mathematics & Engineering  (650) 949-7259
www.foothill.edu/psme/

PHYS 2A GENERAL PHYSICS 5 Units
Prerequisite: MATH 51 or higher placement on the Foothill College Placement Exam.
4 hours lecture, 1 hour lecture-laboratory, 2 hours laboratory, 2 hours TBA.
Lectures, demonstrations, and problems in mechanics; properties of matter. [Foothill GE: Natural Sciences; Transferability: UC/CSU]

PHYS 2B GENERAL PHYSICS 5 Units
Prerequisite: PHYS 2A.
4 hours lecture, 1 hour lecture-laboratory, 2 hours laboratory, 2 hours TBA.
Lectures, demonstrations, and problems in thermal physics; electricity and magnetism. [Transferability: UC/CSU]

PHYS 2C GENERAL PHYSICS 5 Units
Prerequisite: PHYS 2B.
4 hours lecture, 1 hour lecture-laboratory, 2 hours laboratory, 2 hours TBA.
Lectures, demonstrations, and problems in waves; optics; introductory quantum mechanics; atomic physics; and nuclear physics. [Transferability: UC/CSU]

PHYS 4A GENERAL PHYSICS (CALCULUS) 6 Units
Prerequisite: High school physics or PHYS 6 (highly recommended), or PHYS 2A.
Corequisite: Completion of or concurrent enrollment in MATH 1B.
5 hours lecture, 1 hour lecture-laboratory, 2 hours laboratory, 2 hours TBA.
Mathematics-physics interrelationships, classical Newtonian mechanics. [Foothill GE: Natural Sciences; Transferability: UC/CSU]

PHYS 4B GENERAL PHYSICS (CALCULUS) 6 Units
Prerequisite: PHYS 4A.
Corequisite: Completion of or concurrent enrollment in MATH 1C.
5 hours lecture, 1 hour lecture-laboratory, 2 hours laboratory, 2 hours TBA.
Classical electricity and magnetism. [Transferability: UC/CSU]

PHYS 4C GENERAL PHYSICS (CALCULUS) 6 Units
Prerequisite: PHYS 4A.
Corequisite: Completion of or concurrent enrollment in MATH 1C.
5 hours lecture, 1 hour lecture-laboratory, 2 hours laboratory, 2 hours TBA.
Thermodynamics; mechanical, acoustical, and electromagnetic waves; optics. [Transferability: UC/CSU]

PHYS 4D GENERAL PHYSICS (CALCULUS) 6 Units
Prerequisite: PHYS 4B and 4C.
Corequisite: Completion of or concurrent enrollment in MATH 2A.
5 hours lecture, 1 hour lecture-laboratory, 2 hours laboratory, 2 hours TBA.
Special relativity, statistical mechanics, quantum mechanics, atomic physics, nuclear physics, particle physics. [Transferability: UC/CSU]

PHYS 6 INTRODUCTORY PHYSICS 5 Units
Prerequisite: MATH 49.
Corequisite: Completion of or concurrent enrollment in MATH 1A.
5 hours lecture.
Lectures, demonstrations, and problems in mechanics, electricity and magnetism. [Transferability: UC/CSU]

PHYS 12 INTRODUCTION TO MODERN PHYSICS 5 Units
5 hours lecture.
Non-mathematical introduction to the ideas of modern physics designed for those not majoring in the physical sciences. After a brief introduction to the history and ideas of physics in general, the course focuses on three areas of modern physics which have revolutionized our understanding of nature: thermodynamics and the concept of entropy, Einstein’s special and general theories of relativity, and quantum mechanics. The key ideas in these areas are explained using demonstrations, analogies, and examples drawn, whenever possible, from the student’s own experience.

All courses on this page are Title 5 degree applicable credit courses unless otherwise noted.
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POLI 2H HONORS COMPARATIVE GOVERNMENT & POLITICS 4 Units
Prerequisite: Eligibility for ENGL 1A or ESL 26; Honors Institute participant.
Advisory: Not open to students with credit in POLI 2.
4 hours lecture.
Introductory analysis of comparative governmental systems and politics emphasizing a variety of political forms, theory of political differentiation and development, and patterns, processes and regularities among political systems in developing and developed world. As an honors course, it is a full seminar with advanced teaching methods focusing on major writing, reading, and research assignments, student class presentations, group discussions and interactions. [Foothill GE: Social & Behavioral Sciences; Transferability: UC/CSU]

POLI 3 INTRODUCTION TO POLITICAL PHILOSOPHY/POLITICAL THEORY 5 Units
Advisory: Eligibility for ENGL 1A or ESL 26; not open to students with credit in POLI 3H.
5 hours lecture.
Analysis of the history of political thought, the development of forms of political ideologies and their manifestation in forms of the state. Philosophical formulations of concepts of state of nature, natural law, natural rights, civil and political society explored as integral parts of philosophies of: Plato and Aristotle, Augustine and Aquinas, Machiavelli and Hobbes, Locke and Rousseau, Bentham and Mill, Hegel, Marx, and Antonio Gramsci. [Foothill GE: Social & Behavioral Sciences; Transferability: UC/CSU]

POLI 3H HONORS INTRODUCTION TO POLITICAL PHILOSOPHY/POLITICAL THEORY 5 Units
Prerequisite: Eligibility for ENGL 1A or ESL 26; Honors Institute participant.
Advisory: Not open to students with credit in POLI 3.
5 hours lecture.
Analysis of the history of political thought, the development of various forms of political ideologies and their manifestation in forms of the state. Philosophical formulations of concepts of state of nature, natural law, natural rights, civil and political society explored as integral parts of political philosophies of: Plato and Aristotle, Augustine and Aquinas, Machiavelli and Hobbes, Locke and Rousseau, Bentham and Mill, Hegel, Marx and Gramsci. As an Honors Course, it is a full seminar with advanced teaching methods focusing on major writing, reading, and research assignments, student class presentations, group discussions and interactions. [Foothill GE: Social & Behavioral Sciences; Transferability: UC/CSU]

POLI 9 POLITICAL ECONOMY 4 Units
Advisory: Not open to students with credit in ECON 9, 9H or POLI 9H.
4 hours lecture.
Overview of political economy emphasizing the interplay between economics and politics in the formulation of public policy. Policy issues of current significance emphasized. [Foothill GE: Social & Behavioral Sciences; Transferability: UC/CSU]

POLI 9H HONORS POLITICAL ECONOMY 4 Units
Prerequisite: Honors Institute participant.
Advisory: Not open to students with credit in ECON 9, 9H or POLI 9; eligibility for ENGL 1A or ESL 26.
4 hours lecture.
Overview of political economy emphasizing the interplay between Economics and politics in the formulation of public policy. Policy issues of current significance emphasized. As an honors course, it is a full thematic seminar with advanced teaching methods focusing on extensive writing, reading, and research assignments, student lectures, group discussions and interactions. Distinguishing features include: heightened focus on and evaluation of global objectives and components of developed and developing nations, increased depth of analysis and breadth of examination, higher level of student critical thinking. Expanded learning outcomes and fuller description of these focused elements. [Transferability: UC/CSU]

POLI 15 INTERNATIONAL RELATIONS/ WORLD POLITICS 4 Units
Advisory: Eligibility for ENGL 1A or ESL 26; not open to students with credit in POLI 15H.
4 hours lecture.
Analysis of the basic elements of international relations, including the factors of sovereignty, nationalism, and national policies. The international struggle for hegemony and the impact of terrorism on world politics are systematically examined in the context of an increasingly unipolar world. [Foothill GE: Social & Behavioral Sciences; Transferability: UC/CSU]

POLI 15H HONORS INTERNATIONAL RELATIONS/WORLD POLITICS 4 Units
Prerequisite: Eligibility for ENGL 1A or ESL 26; Honors Institute participant.
Advisory: Not open to students with credit in POLI 15.
4 hours lecture.
A seminar in directed readings, discussions and projects in political science. Specific topics to be determined by the instructor. [Transferability: CSU; UC credit may be granted after transfer and upon portfolio review]

POLI 34H HONORS INSTITUTE SEMINAR IN POLITICAL SCIENCE 1 Unit
Formerly: POLI 34
Prerequisite: Honors Institute participant.
Advisory: Not open to students with credit in POLI 34.
1 hour lecture.
A seminar in directed readings, discussions and projects in political science. Specific topics to vary. [Transferability: CSU]

POLI 35 DEPARTMENT HONORS PROJECTS IN POLITICAL SCIENCE 1 Unit
May be taken 6 times for credit.
1 hour lecture.
Seminar in readings, research, critical techniques and practice. Specific topics vary. [Transferability: CSU]

POLI 36 SPECIAL PROJECTS IN POLITICAL SCIENCE 1 Unit
POLI 36X 2 Units
POLI 36Y 3 Units
POLI 36Z 4 Units
Any combination of POLI 36–36Z may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit.
1 hour lecture for each unit of credit.
Advanced readings, research and/or project in political science. Specific topics determined in consultation with instructor. [Transferability: CSU]

PRIMARY CARE ASSOCIATE

Biological & Health Sciences (650) 725-6959
www.foothill.edu/bio/programs/primary/

P C 80 FAMILY MEDICINE DIDACTIC 14 Units
Prerequisite: Admission to the Primary Care Associate Program.
9 hours lecture, 10 hours lecture-laboratory, 2 hours collaborative learning.
Introduction to concepts of family medicine, including the recognition of signs, symptoms, and the management of common medical problems. [Transferability: CSU]
P C 80 FAMILY MEDICINE CLINICAL 5 Units
Prerequisite: Admission to the Primary Care Associate Program.
10 hours laboratory, 12 hours clinical.
Clinical experience in taking a comprehensive patient history, performing
a complete physical examination, ordering and interpreting the
significance of pertinent laboratory studies and appropriately recording
the information in the patient’s medical record. [Transferability: CSU]

P C 81 FAMILY MEDICINE DIDACTIC 8 Units
Prerequisite: P C 80.
8 hours lecture, 2 hours collaborative learning.
Expansion of medical concepts presented in PC 80 with a particular
focus on the impact of disease on family functions, women’s health
care, and diseases related to cardiovascular and neurological systems.
[Transferability: CSU]

P C 81P FAMILY MEDICINE CLINICAL 8 Units
Prerequisite: P C 80P.
27 hours clinic, 12 hours laboratory, 2 hours field study.
Clinical experience through which the student develops clinical skills of
a PA or NP: Taking medical histories, performing physical examinations,
ordering and performing laboratory studies, interpreting findings,
recording patient information, and reporting findings to the physician
preceptor. [Transferability: CSU]

P C 82 FAMILY MEDICINE DIDACTIC 8 Units
Prerequisite: P C 81.
8 hours lecture, 2 hours collaborative learning.
Expansion of medical concepts presented in PC 81 with a particular
focus on common problems related to geriatrics, chronic disease
management, outpatient care, occupational health, oncology, human
immunodeficiency virus, musculoskeletal problems, and approaches to
these conditions. [Transferability: CSU]

P C 82P FAMILY MEDICINE CLINICAL 9 Units
Prerequisite: P C 81P.
32 hours preceptor-clinic, 12 hours laboratory, 2 hours field study.
This is a continuation of PC 81P. [Transferability: CSU]

P C 83 FAMILY MEDICINE DIDACTIC 6 Units
Prerequisite: P C 82.
6 hours lecture, 2 hours collaborative learning.
Integration of medical concepts presented in previous didactic courses
and the skills needed to develop a differential diagnosis, assessment, and
plan for diseases or problems related to emergency medicine/surgery,
psychiatry, musculoskeletal problems, genitourinary, human sexuality,
pediatrics. [Transferability: CSU]

P C 83P FAMILY MEDICINE CLINICAL 9 Units
Prerequisite: P C 82P.
32 hours preceptor-clinic, 12 hours laboratory, 2 hours field study.
Continuation of PC 82P. [Transferability: CSU]

P C 84 FAMILY MEDICINE DIDACTIC 8 Units
Prerequisite: P C 83.
8 hours lecture, 2 hours collaborative learning.
Integration of medical concepts presented in previous didactic courses
and clinical instruction. Emphasis will be placed on synthesis and
application of medical knowledge in the management of common clinical
conditions encountered in primary care and family practice settings.
[Transferability: CSU]

P C 84P FAMILY MEDICINE CLINICAL 9 Units
Prerequisite: P C 83P.
32 hours preceptor-clinic, 12 hours laboratory, 2 hours field study.
This is a continuation of P C 83P. [Transferability: CSU]

P C 85 SPECIAL CLINICAL PROJECTS IN 4 Units
P C 85X PRIMARY CARE MEDICINE 5 Units
P C 85Y 6 Units
5 hours clinical practicum for each unit of credit.
A clinical preceptorship designed to provide experience in selected
medical settings. [Transferability: CSU]

P C 86 SPECIAL DIDACTIC PROJECTS IN 4 Units
P C 86X PRIMARY CARE MEDICINE 5 Units
P C 86Y 6 Units
Prerequisite: Admissions to the Primary Care Associate Program.
May be taken 6 times for credit.
5 hours didactic for each unit of credit.
Projects in selected medical topics in primary care medicine.
[Transferability: CSU]

P C 87 EXTENDED CLINICAL INTERNSHIP 1 Unit
May be taken 6 times for credit.
5 hours laboratory.
Extended clinical internship. Offers additional period of clinical exposure
for students needing further clinical time to develop requisite skills.
[Transferability: CSU]

P C 88 EXTENDED CLINICAL INTERNSHIP 2 Units
May be taken 6 times for credit.
10 hours laboratory.
Extended clinical internship. Offers additional period of clinical exposure
for students needing further clinical time to develop requisite skills.
Offered each quarter. [Transferability: CSU]

P C 89 EXTENDED CLINICAL INTERNSHIP 3 Units
May be taken 6 times for credit.
15 hours laboratory.
Extended clinical internship. Offers additional period of clinical exposure
for students needing further clinical time to develop requisite skills.
[Transferability: CSU]

P C 190 DIRECTED STUDY IN PRIMARY .5 Unit
P C 190X CARE MEDICINE 1 Unit
P C 190Y 1.5 Units
P C 190Z 2 Units
Advisory: Pass / No Pass
Any combination of P C 190–190Z may be taken 6 times for credit,
however, no single course may be taken more than 6 times for credit.
.5 hour lecture, 1.5 hour laboratory for each unit of credit.
For students who desire or require additional help in attaining
comprehension and competency in learning skills.

PSYCHOLOGY

Business & Social Sciences (650) 949-7322
www.foothill.edu/bss/

PSYC 1 GENERAL PSYCHOLOGY 5 Units
5 hours lecture.
Exploration of primary areas, problems and concepts of psychology.
Factors influencing human behavior and experience. Methodology,
physiological basis, learning cognitive processes, perception, motivation
and emotion, personality, pathology, treatment, and social processes.
Area overview and emphasis on experimental, personality, developmental
and humanistic psychology. [Foothill GE: Social & Behavioral Sciences;
Transferability: UC/CSU]

PSYC 4 INTRODUCTION TO PSYCHOBIOLOGY 4 Units
4 hours lecture.
Central and peripheral nervous system processes underlying the
behavior of humans and animals. Examines anatomical and physiological
components of behavior and consciousness, basic methods of
biopsychology, and neural mechanism and sensory processes associated
with learning, perception, motivation, emotion and speech. [Foothill GE:
Social & Behavioral Sciences; Transferability: UC/CSU]
PSYC 10  INTRODUCTION TO SOCIAL RESEARCH  4 Units
Advisory: Not open to students with credit in SOC 10.
4 hours lecture.
Introduction to the most common types of research on human behavior: experimentation, survey research, and field research. Examination of the logic of each technique, applications of techniques using actual research studies; limitations of studying human behavior. [Foothill GE: Social & Behavioral Sciences; Transferability: UC/CSU]

PSYC 14  CHILDHOOD & ADOLESCENCE  4 Units
4 hours lecture.
Intelectual, social, and personality development during childhood and adolescence. [Foothill GE: Social & Behavioral Sciences; Transferability: UC/CSU]

PSYC 21  PSYCHOLOGY OF WOMEN: SEX & GENDER DIFFERENCES  4 Units
Advisory: Not open to students with credit in SOC 21 or WMN 21.
4 hours lecture.
Survey of gender issues based upon psychological and sociological theories and research. Examination of sex role stereotyping and differences. Developmental considerations. [Foothill GE: Social & Behavioral Sciences; Transferability: UC/CSU]

PSYC 22  PSYCHOLOGY OF PREJUDICE  4 Units
4 hours lecture.
Psychological aspects of group interaction. The complex psychological patterns that develop among different majority and non-majority ethnic and racial groups resulting from the effects of overt and covert discrimination. [Foothill GE: United States Cultures & Communities, Social & Behavioral Sciences; Transferability: UC/CSU]

PSYC 25  INTRODUCTION TO ABNORMAL PSYCHOLOGY  4 Units
4 hours lecture.
Principles of general psychology applied to the field of psychopathology. Survey of neurotic and psychotic behavior disorders and their major causes and treatment. [Foothill GE: Social & Behavioral Sciences; Transferability: UC/CSU]

PSYC 30  SOCIAL PSYCHOLOGY  4 Units
Advisory: Not open to students with credit in SOC 30.
4 hours lecture.
Survey of sociological and psychological theories and research studies examining the influence of society and social groups on the individual and the influence of the individual on society and social groups. Examination of overlapping and differing contents, level of analysis and methodologies. Focus on human interaction and the shaping of diverse and commonly-shared attitudes, beliefs and world views by society, culture and social groups. Assessment of classic and current social psychological studies. [Foothill GE: Social & Behavioral Sciences; Transferability: UC/CSU]

PSYC 33  INTRODUCTION TO THE CONCEPTS OF PERSONALITY  4 Units
4 hours lecture.
Introduction to the determinants of personality and the dynamics of personality as manifested in personal and social behavior. [Foothill GE: Social & Behavioral Sciences; Transferability: UC/CSU]

PSYC 34H HONORS INSTITUTE SEMINAR IN PSYCHOLOGY  1 Unit
Formerly: PSYC 34
Prerequisite: Honors Institute participant.
Advisory: Not open to students with credit in PSYC 34.
1 hour lecture.
A seminar in directed readings, discussions and projects in psychology. Specific topics to be determined by the instructor. [Transferability: CSU; UC credit may be granted after transfer and upon portfolio review.]

PSYC 35  DEPARTMENT HONORS PROJECTS IN PSYCHOLOGY  1 Unit
May be taken 6 times for credit.
1 hour lecture.
Seminar in readings, research, critical techniques and practice. Specific topics vary. [Transferability: CSU]

PSYC 36  SPECIAL PROJECTS IN PSYCHOLOGY  1 Unit
PSYC 36X  2 Units
PSYC 36Y  3 Units
PSYC 36Z  4 Units
Any combination of PSYC 36–36Z may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit.
1 hour lecture for each unit of credit.
Advanced readings, research and/or project in psychology. Specific topics determined in consultation with instructor. [Transferability: CSU]

PSYC 40  HUMAN DEVELOPMENT  4 Units
4 hours lecture.
Intellectual, social and personality development through the life span. [Foothill GE: Social & Behavioral Sciences; Transferability: UC/CSU]

PSYC 49  HUMAN SEXUALITY  4 Units
4 hours lecture.
Current factual analysis of and information on sexual functioning and sexuality. Basic questions regarding sexual behavior, sexual roles, anatomy and physiology of sexual response, social patterns of sexual behavior, sexual adjustment and maladjustment. Includes treatment of sexual dysfunction, sex variance, the reproductive span of contraception-pregnancy-birth, sexual disease. Legal, political and cultural aspects of sexual behavior. [Foothill GE: Social & Behavioral Sciences; Transferability: UC/CSU]

PSYC 50  PSYCHOLOGY OF CRISIS  5 Units
Advisory: PSYC 1.
4 hours lecture, 3 hours laboratory.
An introduction to theory and strategies of crisis intervention, including exploration of ethical and multicultural issues. Models of disaster response and crisis intervention examined. Guidelines and role play of how crisis workers may react to victims of trauma, safety issues, as well as coping with provider burnout. Discussion and demonstration of critical incident debriefing. Observation and role play of appropriate crisis intervention techniques for different field conditions. Students participate in training or working with local crisis management agencies, as part of required field experience. [Transferability: CSU]

PSYC 55  PSYCHOLOGY OF SPORTS  4 Units
4 hours lecture.
Basis and catalyst for peak sports performance. Body/mind relationship, particularly the area of peak performance in sports. Focus on relaxation, visualization, hypnosis, neuropsychology, physiology, left vs. right brain hemisphere specialization, concentration techniques, motivation, emotion and attitude improvement. [Foothill GE: Social & Behavioral Sciences; Transferability: CSU]

RADIO

Fine Arts & Communication (650) 949-7555
www.kfjc.org & www.foothill.edu/fa/

RAD 70  SPECIAL PROJECTS IN RADIO  1 Unit
RAD 70X  2 Units
RAD 70Y  3 Units
RAD 70Z  4 Units
Any combination of RAD 70–70Z may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit.
3 hours of laboratory for each unit of credit.
Individual projects in creative, technical or applied work in radio at KFJC or in commercial broadcasting and related industries. Enrollment is available in the Fine Arts & Communications Division office. [Transferability: CSU]
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Description</th>
<th>Advisory Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>RAD 80</td>
<td>FUNDAMENTALS OF RADIO PRODUCTION &amp; STATION OPERATION</td>
<td>3</td>
<td>2 hours lecture, 3.5 hours laboratory. Fundamentals of radio directing and production, and the related fields of news, public affairs, sales, promotions, and management. Practical equipment use, basic studio operations and FCC regulations; entry-level terminology and industry standards. [Transferability: CSU]</td>
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<tr>
<td>RAD 81</td>
<td>HISTORY OF RADIO 1920–PRESENT</td>
<td>4</td>
<td>4 hours lecture. A comprehensive study of the radio broadcasting industry, its origin, development, operation, regulation, and influences. [Transferability: CSU]</td>
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<tr>
<td>RAD 90A</td>
<td>NEWS &amp; INFORMATION PRODUCTION I</td>
<td>3</td>
<td>1 hour lecture, 6 hours laboratory. Beginning scripting, voicing, and recording of information programming. Introduction to news, public affairs, sports, and public service announcement production and department operations at the Foothill College FM station. [Transferability: CSU]</td>
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</tr>
<tr>
<td>RAD 90B</td>
<td>NEWS &amp; INFORMATION PRODUCTION II</td>
<td>3</td>
<td>Prerequisite: RAD 90A. 1 hour lecture, 6 hours laboratory. Elementary scripting, voicing, and recording of informational programming. Advancement in news, public affairs, sports, and public service announcement production and department operations at the Foothill College FM station. [Transferability: CSU]</td>
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</tr>
<tr>
<td>RAD 90C</td>
<td>NEWS &amp; INFORMATION PRODUCTION III</td>
<td>3</td>
<td>Prerequisite: RAD 90A. 1 hour lecture, 6 hours laboratory. Intermediate scripting, voicing, and recording of informational programming. Advancement in news, public affairs, sports, and public service announcement production and department operations at the Foothill College FM station. [Transferability: CSU]</td>
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<tr>
<td>RAD 90D</td>
<td>NEWS &amp; INFORMATION PRODUCTION IV</td>
<td>3</td>
<td>Prerequisite: RAD 90A. 1 hour lecture, 6 hours laboratory. Advanced scripting, voicing, and recording of informational programming. Advancement in news, public affairs, sports, and public service announcement production and department operations at the Foothill College FM station. [Transferability: CSU]</td>
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<tr>
<td>RAD 91A</td>
<td>RADIO STATION SALES &amp; MARKETING I</td>
<td>3</td>
<td>Advisory: RAD 90A. 1 hour lecture, 6 hours laboratory. Fundamentals of radio sales training, marketing, promotions and publicity, and departmental operations at the Foothill College FM station. [Transferability: CSU]</td>
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<td>RAD 91B</td>
<td>RADIO STATION SALES &amp; MARKETING II</td>
<td>3</td>
<td>Advisory: RAD 90A. 1 hour lecture, 6 hours laboratory. Elementary radio sales training, marketing, publicity and promotions, and departmental operations at the Foothill College FM station. [Transferability: CSU]</td>
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<td>RAD 91C</td>
<td>RADIO STATION SALES &amp; MARKETING III</td>
<td>3</td>
<td>Advisory: RAD 90A. 1 hour lecture, 6 hours laboratory. Intermediate radio sales training, marketing, promotions and publicity, and departmental operations at the Foothill College FM station. [Transferability: CSU]</td>
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<td>RAD 91D</td>
<td>RADIO STATION SALES &amp; MARKETING IV</td>
<td>3</td>
<td>Advisory: RAD 90A. 1 hour lecture, 6 hours laboratory. Advanced radio sales training, marketing, promotions and publicity, and departmental operations at the Foothill College FM station. [Transferability: CSU]</td>
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<tr>
<td>RAD 92A</td>
<td>RADIO PROGRAMMING &amp; PRODUCTION I</td>
<td>3</td>
<td>Advisory: RAD 90A. 1 hour lecture, 6 hours laboratory. Basic production studio and master control room operation. Practical experience in planning, announcing, and engineering of live on-air shifts and pre-recorded announcements and programs. [Transferability: CSU]</td>
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<tr>
<td>RAD 92B</td>
<td>RADIO PROGRAMMING &amp; PRODUCTION II</td>
<td>3</td>
<td>Advisory: RAD 90A. 1 hour lecture, 6 hours laboratory. Elementary production studio and control room operation. Practical experience in the planning, announcing, and engineering of live on-air shifts and pre-recorded announcements and programs and departmental operations at the Foothill College FM station. [Transferability: CSU]</td>
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<tr>
<td>RAD 92C</td>
<td>RADIO PROGRAMMING &amp; PRODUCTION III</td>
<td>3</td>
<td>Advisory: RAD 90A. 1 hour lecture, 6 hours laboratory. Intermediate production studio and control room operation. Practical experience in the planning, announcing, and engineering of live on-air shifts and pre-recorded announcements and programs and departmental operations in the Foothill College FM station. [Transferability: CSU]</td>
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<tr>
<td>RAD 92D</td>
<td>RADIO PROGRAMMING &amp; PRODUCTION IV</td>
<td>3</td>
<td>Advisory: RAD 90A. 1 hour lecture, 6 hours laboratory. Advanced production studio and control room operation. Practical experience in the planning, announcing, and engineering of live on-air shifts and pre-recorded announcements and programs, and departmental operations in the Foothill College FM station. [Transferability: CSU]</td>
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<tr>
<td>RAD 93A</td>
<td>MUSIC INDUSTRY RELATIONS &amp; ENGINEERING I</td>
<td>3</td>
<td>Advisory: RAD 90A. 1 hour lecture, 6 hours laboratory. Beginning music industry relations and engineering. Solicitation of product service, reporting to industry trade journals, producing live music performance broadcast mixes and mobile DJ appearances, and departmental operations at the Foothill College FM station. [Transferability: CSU]</td>
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<tr>
<td>RAD 93B</td>
<td>MUSIC INDUSTRY RELATIONS &amp; ENGINEERING II</td>
<td>3</td>
<td>Advisory: RAD 90A. 1 hour lecture, 6 hours laboratory. Elementary music industry relations and engineering. Solicit product service, reporting to industry trade journals, producing live music performance broadcast mixes and mobile DJ appearances, and departmental operations at the Foothill College FM station. [Transferability: CSU]</td>
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</tbody>
</table>
RAD 93C MUSCULOSKELETAL ANATOMY II 3 Units
Advisory: R T 90A.  
1 hour lecture, 6 hours laboratory.  
Intermediate study of the musculoskeletal system; clinical applications related to the upper extremities.  
Prerequisite: R T 90A.  
[Transferability: CSU]

RAD 93D MUSCULOSKELETAL ANATOMY III 3 Units
Advisory: R T 90A.  
Intermediate study of the musculoskeletal system; clinical applications related to the lower extremities and spine.  
Prerequisite: R T 90A.  
[Transferability: CSU]

R A D 190 DIRECTED STUDY .5 Unit  
Advisory: Pass/No Pass.  
Any combination of RAD 190–190Z may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit.  
.5 hour lecture, 1.5 hours laboratory for each .5 unit of credit.  
For students who desire or require additional help in attaining comprehension and competency in learning skills.

R A D 190X DIRECTED STUDY I 1 Unit
R A D 190Y DIRECTED STUDY II 1.5 Units
R A D 190Z DIRECTED STUDY III 2 Units

R A D 53B PRINCIPLES OF RADIOLOGIC TECHNOLOGY II 3 Units
Prerequisite: R T 52B.  
3 hours lecture.  
Continuation of R T 52B; expansion of principles of X-ray physics, technique and protection.  
[Transferability: CSU]

R A D 53C PRINCIPLES OF RADIOLOGIC TECHNOLOGY III 3 Units  
Prerequisite: R T 52C.  
3 hours lecture.  
Continuation of R T 52C; expansion of principles of X-ray physics, technique and protection.  
[Transferability: CSU]

R A D 53D DIGITAL IMAGE ACQUISITION & DISPLAY 3 Units
Prerequisite: R T 52D.  
2.5 hours lecture, 1.5 hours laboratory.  
Continuation of R T 52D; principles and operation of digital imaging systems found in diagnostic radiology.  
[Transferability: CSU]
R T 53C  APPLIED RADIOGRAPHIC TECHNOLOGY III  3 Units
Prerequisite: R T 53B.
16 hours clinical laboratory, 2 hours case study research.
Clinical participation and application of basic positioning, patient care, equipment manipulation, radiation protection and image analysis. [Transferability: CSU]

R T 53CL  APPLIED RADIOGRAPHIC TECHNOLOGY LABORATORY III  1 Unit
Prerequisite: R T 53B.
3 hours laboratory.
Continuation of structured lab skill development in positioning, technique selection, protection, clinical observation and practicum. [Transferability: CSU]

R T 53D  APPLIED RADIOLOGIC TECHNOLOGY IV  8 Units
Prerequisite: R T 51C, 52C and 53C.
27 hours clinical laboratory, 2 hours case study research.
Clinical participation and application of basic positioning, patient care, equipment manipulation, radiation protection and image analysis. [Transferability: CSU]

R T 54A  BASIC PATIENT CARE FOR IMAGING TECHNOLOGY  2 Units
Formerly: R T 50B
Prerequisite: R T 50.
2 hours lecture.
Basic concepts of patient care, including consideration for the physical and psychological needs of the patient and family. Routine and emergency patient care procedures and techniques as well as infection control protocols. [Transferability: CSU]

R T 54B  LAW & ETHICS IN MEDICAL IMAGING  2 Units
Formerly: R T 50A
Prerequisite: R T 54A.
2 hours lecture.
A fundamental background in ethics. The historical and philosophical basis of ethics, as well as the elements of ethical behavior in regards to clinical practice. Misconduct, malpractice, legal and professional standards and the ASRT scope of practice. [Transferability: CSU]

R T 54C  RADIOGRAPHIC PATHOLOGY  3 Units
Formerly: R T 51D
Prerequisite: R T 54B.
Advisory: Not open to students with credit in R T 51D.
3 hours lecture.
Radiographic Pathology of the respiratory, osseous, fractures, urinary, gastrointestinal, hepatobiliary, central nervous, hemopoietic and endocrine systems, HSG's and associated pathologies. [Transferability: CSU]

R T 54D  RADIOLOGY RESEARCH PROJECT  1 Unit
Prerequisite: R T 62A and 63A.
1 hour lecture, 2 hours case study research.
Research project on a highly specialized area of radiography or other imaging modality. Individual display/research paper required. Specific topics to be determined by the instructor. [Transferability: CSU]

R T 62B  SPECIAL PROCEDURES & EQUIPMENT  3 Units
Prerequisite: R T 62A and 63A.
3 hours lecture.
Continuation of R T 62A with emphasis on radiography of the skull, facial bones, mandible, and sinuses. Advanced radiographic procedures with emphasis on angiographic, cerebral, heart and interventional procedures, angiographic equipment, radiographic anatomy and pathology. [Transferability: CSU]

R T 62C  ADVANCED RADIOGRAPHIC POSITIONING  3 Units
Prerequisite: R T 62B and 63B.
3 hours lecture.
Continuation of R T 62B with emphasis in professional development, continuing education, quality control and quality assurance, non-routine positioning of the osseous system, sonography, cardiopulmonary resuscitation, and pediatric radiology. [Transferability: CSU]

R T 62D  APPLIED RADIOLOGIC TECHNOLOGY  1 Unit
Prerequisite: R T 62C.
6 hours clinical laboratory.
Clinical experience in advanced positioning of the skull, facial bones, mastoids and sinuses with emphasis on computed tomography. [Transferability: CSU]

R T 63A  RADIOGRAPHIC CLINICAL PRACTICUM I  7.5 Units
Prerequisite: R T 52C and 53D.
32 hours clinical laboratory, 2 hours case study research.
Advanced radiographic positioning with emphasis on radiography of skull, facial bones, mandible, sinuses, mastoids. Special radiographic procedures related to the cranium. Pathology related to the cranium. Related clinical experience. [Transferability: CSU]

R T 63B  RADIOGRAPHIC CLINICAL PRACTICUM II  7.5 Units
Prerequisite: R T 62A and 63A.
32 hours clinical laboratory, 2 hours case study research.
Special radiographic equipment, imaging modalities, and special radiographic procedures. Radiographic anatomy and pathology. Related clinical experience. [Transferability: CSU]

R T 63C  RADIOGRAPHIC CLINICAL PRACTICUM III  7.5 Units
Prerequisite: R T 62B and 63B.
32 hours clinical laboratory.
Continuation of R T 62B with emphasis on pediatric skull radiography, facial bone radiography, non-routine positioning of the osseous system. Quality control practices. Advanced clinical experience. [Transferability: CSU]

R T 63D  RADIOGRAPHIC CLINICAL PRACTICUM  7.5 Units
Prerequisite: R T 62A and 63C.
32 hours clinical laboratory.
Special emphasis on advanced radiographic physics, technique, protection and positioning for registry examination preparation. Continued clinical experience and film analysis. [Transferability: CSU]
**REAL ESTATE**

**Business & Social Sciences**

(650) 949-7322  
www.foothill.edu/bss/

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**R E 50**  
REAL ESTATE PRINCIPLES  
4 Units  
4 hours lecture.  
Fundamental principles, economics, law, working concepts, forms, and terminology. California real estate law as preparation for the salesman and broker examinations. [Transferability: CSU]

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**R E 51**  
REAL ESTATE PRACTICES  
4 Units  
Advisory: R E 50 or a current California Real Estate sales or broker’s license.  
4 hours lecture.  
Emphasizes day-to-day practical knowledge needed by persons engaged in the real estate business; procedures, forms, contracts; licensing laws; State of California Code of Professional Responsibility; and NAR Code of Ethics. [Transferability: CSU]

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**R E 52A**  
LEGAL ASPECTS OF REAL ESTATE I  
4 Units  
Advisory: R E 50.  
4 hours lecture.  
California real property laws with emphasis on practical application. Illustrative California court cases and examples used for class discussions. Subjects covered include sources of real estate law; classes of property; fixtures; easements; estates or interests in real property; contracts of sale; covenants; conditions and restrictions. Mandatory for all real estate broker applicants. [Transferability: CSU]

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**R E 53**  
REAL ESTATE FINANCE  
4 Units  
4 hours lecture.  
Regulations and procedures for financing real estate; types of lenders; methods of qualifying for loans; uses of mortgages, trust deeds, leases, common stock, bonds; financial analysis of real properties. [Transferability: CSU]

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**R E 54**  
REAL ESTATE ECONOMICS  
4 Units  
4 hours lecture.  
Economic factors affecting real estate; urban development, renewal and regulation of land uses; business fluctuations and real estate cycles; mortgage market; commercial, industrial and residential income properties and trends; rural and special purposes properties and trends. [Transferability: CSU]

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**R E 56A**  
REAL ESTATE APPRAISAL I  
4 Units  
Advisory: R E 50.  
4 hours lecture.  
Introduction to principles of real estate valuation. Appraisal profession and process: data collection, methods, statistical analysis, the appraisal report, ethics. Emphasis on residential construction. Qualifies for California Appraiser Certification licensing requirements and broker’s licenses. [Transferability: CSU]

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**R E 56B**  
REAL ESTATE APPRAISAL II  
4 Units  
Prerequisite: R E 56A.  
4 hours lecture.  
Advanced principles and practices of real estate valuation. Emphasis on appraising income property. Data collection, analysis, and reporting for commercial, apartment house, industrial, and vacant land. Qualifies for California Appraisal Certification licensing requirements and for broker’s license requirements. [Transferability: CSU]

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**R E 59**  
SURVEY OF REAL ESTATE PROPERTY MANAGEMENT  
4 Units  
Advisory: R E 50.  
4 hours lecture.  
Successful techniques and practices in the management of income property from acquisition to disposal; neighborhood analyses, rent schedules, renting, credit, collections, evictions, maintenance and rehabilitation; insurance, tax considerations, depreciation schedules, pitfalls in purchase of income property. [Transferability: CSU]

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**R E 61**  
INTRODUCTION TO REAL ESTATE INVESTMENTS  
4 Units  
4 hours lecture.  
Basic concepts and ideas concerning real estate investment for the beginning investor. How to evaluate an investment in terms of personal goals, return of investment, return on investment, tax advantages, and long-range trends. Methods of financing and managing real estate investments. [Transferability: CSU]
### RESPIRATORY THERAPY TECHNOLOGY

**Biological & Health Sciences**

(650) 949-7538  
[www.foothill.edu/bio/programs/respther/](http://www.foothill.edu/bio/programs/respther/)

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<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RSPT 50A</td>
<td>RESPIRATORY THERAPY PROCEDURES</td>
<td>4.5</td>
<td>Prerequisite: Admission to the Respiratory Therapy Program. Advisory: Eligibility for ESLL 26 or ENGL 1A. Corequisite: RSPT 52. 3 hours lecture, 5 hours laboratory. Basic hospital and respiratory therapy procedures. Vital signs, compressed gas equipment, oxygen therapy, medical asepsis, bedside pulmonary function testing, disaster and emergency procedures, back safety. [Transferability: CSU]</td>
</tr>
<tr>
<td>RSPT 50B</td>
<td>INTRODUCTION TO PROCEDURES &amp; HOSPITAL ORIENTATION</td>
<td>6</td>
<td>Prerequisite: RSPT 50A and 54; CPR certification (Health Provider C). Advisory: RSPT 51A. 3 hours lecture, 4.5 hours laboratory, 5 hours clinic, 2.5 hours skill development. Introduction to hospital and patient care, administration of hyperinflation therapy, humidity and aerosol therapy, chest physiotherapy techniques, use of bag/mask unit, infection control procedures. [Transferability: CSU]</td>
</tr>
<tr>
<td>RSPT 50C</td>
<td>THERAPEUTICS &amp; INTRODUCTION TO MECHANICAL VENTILATION</td>
<td>4.5</td>
<td>Prerequisite: RSPT 50B and 53A. 2 hours lecture, 2 hours laboratory, 10 hours clinic, 1.5 hours lecture-laboratory. Practice of skills in the clinic setting. Topics to be covered include IPPB, IV, as well as an introduction to invasive and non-invasive mechanical ventilation. [Transferability: CSU]</td>
</tr>
<tr>
<td>RSPT 51A</td>
<td>INTRODUCTION TO RESPIRATORY ANATOMY &amp; PHYSIOLOGY</td>
<td>2</td>
<td>Prerequisite: Admission to the Respiratory Therapy Program. 2 hours lecture. Anatomy of the respiratory system, ventilation, diffusion of pulmonary gases, circulatory system, and oxygen transport. [Transferability: CSU]</td>
</tr>
<tr>
<td>RSPT 51B</td>
<td>RESPIRATORY PHYSIOLOGY</td>
<td>3</td>
<td>Prerequisite: RSPT 51A or equivalent. 3 hours lecture. Respiratory physiology; normal and altered lung physiology; ventilation-perfusion relationships; control of ventilation; renal, aging, exercise, altitude, high pressure effects on physiology; and arterial blood gas interpretation and acid-base physiology. [Transferability: CSU]</td>
</tr>
<tr>
<td>RSPT 51C</td>
<td>PATIENT ASSESSMENT &amp; PULMONARY DISEASE</td>
<td>4.5</td>
<td>Prerequisite: BIOL 41. Corequisite: RSPT 51B. 4 hours lecture, 1 hour laboratory, 5 hour lecture-laboratory. Physiological approach to the etiology, management, and prognosis of the various respiratory diseases. Utilization of physical examination, chest X-ray and basic clinical laboratory tests in the diagnosis and treatment of pulmonary disease. [Transferability: CSU]</td>
</tr>
<tr>
<td>RSPT 51X</td>
<td>CARDIOPULMONARY ANATOMY, PHYSIOLOGY &amp; PATHOLOGY</td>
<td>4</td>
<td>Prerequisite: Admission to the Upgrade Respiratory Therapy Program. May be taken 3 times for credit. 4 hours lecture. Cardiopulmonary anatomy; respiratory physiology; respiratory lung mechanics; normal and altered lung physiology; ventilation-perfusion relationships; arterial blood gas interpretation and acid base balance; clinical laboratory tests; and cardiopulmonary disease. [Transferability: CSU]</td>
</tr>
<tr>
<td>RSPT 52</td>
<td>APPLIED SCIENCE FOR RESPIRATORY THERAPY</td>
<td>3</td>
<td>Prerequisite: CHEM 25 or 30A; MATH 220, or high school chemistry or equivalent. 3 hours lecture. Basic mathematics and science principles applicable to Respiratory Therapy. Includes algebra review, metric system, behavior of matter, forces, acids and bases, and electrical safety. [Transferability: CSU]</td>
</tr>
<tr>
<td>RSPT 53A</td>
<td>INTRODUCTION TO RESPIRATORY THERAPY PHARMACOLOGY</td>
<td>2</td>
<td>Prerequisite: RSPT 53A. Corequisite: RSPT 60A. 2 hours lecture. An in-depth study of drug groups commonly encountered in the treatment of airway obstruction. [Transferability: CSU]</td>
</tr>
<tr>
<td>RSPT 53B</td>
<td>ADVANCED RESPIRATORY THERAPY PHARMACOLOGY</td>
<td>2</td>
<td>Prerequisite: RSPT 53A. Corequisite: RSPT 60A. 2 hours lecture. An in-depth study of drug groups commonly encountered in intensive respiratory care. [Transferability: CSU]</td>
</tr>
<tr>
<td>RSPT 54</td>
<td>ORIENTATION TO RESPIRATORY CARE</td>
<td>1.5</td>
<td>Prerequisite: Admission to Respiratory Therapy Program. 1 hour lecture, 2 hours laboratory, 1 hour field experience. Orientation to health care with specific emphasis on respiratory care. Orientation to Respiratory Therapy Program. Current issues in American medical care. Professionalism; ethics; legal issues; death, dying and loss; communication skills; medical terminology; cultural diversity. [Transferability: CSU]</td>
</tr>
<tr>
<td>RSPT 55A–G</td>
<td>DIRECTED STUDIES IN RESPIRATORY THERAPY</td>
<td>.5</td>
<td>Corequisite: RSPT 55A. 2 hours laboratory. Media instruction and evaluation in topics paralleling content taught in courses in the Respiratory Therapy Program. Offered each quarter. [Transferability: CSU]</td>
</tr>
<tr>
<td>RSPT 60B</td>
<td>ADVANCED CARDIAC LIFE SUPPORT</td>
<td>2</td>
<td>Prerequisite: RSPT 53B and 60A. 2 hours lecture. Preparation for Advanced Cardiac Life Support Certification. Case studies. [Transferability: CSU]</td>
</tr>
<tr>
<td>RSPT 60C</td>
<td>PULMONARY DIAGNOSTICS</td>
<td>3</td>
<td>Prerequisite: RSPT 51C. 2.5 hours lecture, 1.5 hours laboratory, 1 hour skills development. Course covers selection, performance, and interpretation of tests used to diagnose cardiopulmonary abnormalities. [Transferability: CSU]</td>
</tr>
</tbody>
</table>
RSPT 61A  ADULT MECHANICAL VENTILATION  4 Units
Prerequisite: RSPT 50C and 51C.
3 hours lecture, 3 hours lecture-laboratory, 1 hour skills development.
Develops the concepts and skills essential to meeting the needs of patients placed on artificial ventilation. Includes laboratory exercises of commonly used ventilators and patient-ventilator simulations. For continuing education purposes, new ventilators and state-of-the-art theories on ventilation will be presented based upon current research. [Transferability: CSU]

RSPT 61B  NEONATAL & PEDIATRIC INTENSIVE CARE  4 Units
Prerequisite: RSPT 61A.
3 hours lecture, 3 hours laboratory, 2 hours field experience.
Neonatal and pediatric respiratory intensive care. [Transferability: CSU]

RSPT 61C  HOME & REHABILITATIVE RESPIRATORY CARE  2 Units
Prerequisite: RSPT 61B.
2 hours lecture, 1 hour field study.
Introduction to rehabilitative respiratory care. Discussion of respiratory therapy procedures and equipment used in the treatment of home care patients. [Transferability: CSU]

RSPT 65  COMPUTER PATIENT SIMULATIONS .5 Unit
Prerequisite: RSPT 61A.
2 hours laboratory.
Information gathering and decision making in the management of patients with acute and chronic respiratory conditions. [Transferability: CSU]

RSPT 70A  CLINICAL ROTATION I  2 Units
Prerequisite: RSPT 50C and 51C.
10 hours laboratory.
Exposure to hospital departments. Clinical application of respiratory therapy procedures. Interpretation of basic diagnostic data and correlation to applied therapies. [Transferability: CSU]

RSPT 70B  CLINICAL ROTATION II  6 Units
Prerequisite: RSPT 61A and 70A.
30 hours laboratory.
Continuation of RSPT 70A with performance of more advanced respiratory therapy techniques. Interpretation of increasing amounts of clinical data and a correlation to applied therapies. Participation in cardiopulmonary resuscitations. [Transferability: CSU]

RSPT 70C  CLINICAL ROTATION III  6 Units
Prerequisite: RSPT 61B and 70B.
30 hours laboratory.
Continuation of RSPT 70B. Clinical application of theory relating to monitoring and management of neonate, pediatric, and adult intensive care unit patient. [Transferability: CSU]

RSPT 70D  CLINICAL ROTATION IV  6 Units
Prerequisite: RSPT 70C.
30 hours laboratory.
Continuation of RSPT 70C. Further clinical experience with ventilation and special procedures of surgical, medical, neonatal, and pediatric intensive care, offered as options for remediation. Assignment dependent upon demonstrated student needs. Mini-rotations offered to qualified students, depending on interest. [Transferability: CSU]

RSPT 200L  INTRODUCTION TO RESPIRATORY THERAPY  1 Unit
Non-degree applicable credit course.
2 hours lecture-laboratory.
Introduction to the career of respiratory therapy. Role of the respiratory therapist, areas of specialization in the field, educational requirements and future outlook. Clinical tasks will also be introduced.

ROTC
Foothill College participates in the Reserve Officer Training Corps (ROTC) programs at area universities so that students who want to earn ROTC credit while attending Foothill College may do so. Foothill College students can enroll in lower-division ROTC coursework which can ultimately result in a commission as an officer. Students who enroll in these programs should contact a Foothill counselor for credit and certification. For more information, call one of the following representatives:

Air Force: San Jose State University, (408) 924-2960
Army: Santa Clara University, (408) 554-4781
Navy: UC Berkeley, (510) 642-3351.

SOCIOLGY
Business & Social Sciences  (650) 949-7322
www.foothill.edu/bss/

SOC 1  INTRODUCTION TO SOCIOLOGY  5 Units
5 hours lecture.
Introduction to the field of sociology; the scientific study of human society and the contemporary world, and the interaction of individuals and groups in society. Analysis of major theories, concepts, methods, social institutions, and social processes. Development of a sociological imagination and social context analysis. Society in its social class, racial and gendered dynamics. [Foothill GE: Social & Behavioral Sciences; Transferability: UC/CSU]

SOC 8  POPULAR CULTURE  4 Units
4 hours lecture.
Theoretical and methodological overview of American popular culture. A critical examination of the socio-historical development and contemporary forms of popular culture in America. The relationship of popular culture to individual, group and mass identity formation. Analysis of popular culture and its racial and class dimensions. [Foothill GE: United States Cultures & Communities; Transferability: UC/CSU]

SOC 10  INTRODUCTION TO SOCIAL RESEARCH  4 Units
Advisory: Not open to students with credit in PSYC 10.
4 hours lecture.
Introduction to the most common types of research on human behavior: experimentation, survey research and field research. Examination of the logic of each technique, applicability of techniques using actual research studies; limitations of studying human behavior emphasized. [Foothill GE: Social & Behavioral Sciences; Transferability: UC/CSU]

SOC 11  INTRODUCTION TO SOCIAL WELFARE  5 Units
5 hours lecture.
Sociological perspective of social welfare and the social services system as a field of study and profession. Historical overview of social problems and development of the professional fields. Focus on range of sociological
theory to explain development of social services systems, their core concepts, value systems and methods. [Foothill GE: Social & Behavioral Sciences; Transferability: UC/CSU]

**SOC 15**  
LAW & SOCIETY  
4 Units  
4 hours lecture.  
Introduction to the relationship of law, society and the individual. Institutional analysis of factors underlying the creation, maintenance, and change of legal systems. Theories of jurisprudence and practical problems of law enforcement and the administration of justice. [Foothill GE: Social & Behavioral Sciences; Transferability: UC/CSU]

**SOC 19**  
ALCOHOL & DRUG ABUSE  
4 Units  
4 hours lecture.  
Introduction to problems of substance abuse. History and classification of alcohol and drug abuse. Equips human service workers and general public with knowledge about issues involved in alcohol and drug abuse. Intervention and rehabilitation programs as well as public policy paradigms are examined. [Foothill GE: Social & Behavioral Sciences; Transferability: UC/CSU]

**SOC 20**  
MAJOR SOCIAL PROBLEMS  
4 Units  
4 hours lecture.  
Nature and origins of the principal social problems of our time. Consequences of industrialization, rapid technological change, and resultant tensions of changing roles and status in groups and individuals. Types of remedial social action applicable in each situation. Institutional or deviance approaches acceptable. Research methodology and techniques reviewed. [Foothill GE: Social & Behavioral Sciences; Transferability: UC/CSU]

**SOC 21**  
PSYCHOLOGY OF WOMEN: SEX & GENDER DIFFERENCES  
4 Units  
Advisory: Not open to students with credit in PSYC 21 or WMN 21.  
4 hours lecture.  
Survey of gender issues based upon psychological and sociological theories and research. Examination of sex roles stereotyping and differences. Developmental considerations. [Foothill GE: Social & Behavioral Sciences; Transferability: UC/CSU]

**SOC 23**  
RACE & ETHNIC RELATIONS  
4 Units  
4 hours lecture.  
Focus on the meaning of race and ethnicity as it relates to intergroup relations in the USA. Inclusive analysis of concepts, theories, sociological effects of the Civil Rights Movement, public policy and its impact on diverse racial and ethnic populations in the USA. Historical and sociological assessment of majority-minority relations with emphasis on the perspectives of African-Americans, Hispanic/Latino-Americans, Asian-Americans and the indigenous Native American tribes. Demographic implications of race and ethnic relations on USA’s economic, political and educational institutions. Relationship among race, ethnicity and poverty. [Foothill GE: United States Cultures & Communities, Social & Behavioral Sciences; Transferability: UC/CSU]

**SOC 30**  
SOCIAL PSYCHOLOGY  
4 Units  
Advisory: Not open to students with credit in PSYC 30.  
4 hours lecture.  
Survey of sociological and psychological theories and research studies examining the influence of society and social groups on the individual and the influence of the individual on society and social groups. Examination of overlapping and differing contents, level of analysis and methodologies. Focus on human interaction and the shaping of diverse and commonly-shared attitudes, beliefs and world views by society, culture and social groups. Assessment of classic and current social psychological studies. [Foothill GE: Social & Behavioral Sciences; Transferability: UC/CSU]

**SOC 34H**  
HONORS INSTITUTE SEMINAR  
1 Unit  
IN SOCIOLOGY  
Formerly: SOC 34  
Prerequisite: Honors Institute participant.  
Advisory: Not open to students with credit in SOC 34.  
1 hour lecture.  
A seminar in directed readings, discussions and projects in Sociology. Specific topics to be determined by the instructor. [Transferability: CSU; UC credit may be granted after transfer and upon portfolio review.]

**SOC 35**  
DEPARTMENT HONORS PROJECTS  
1 Unit  
SOC 35X  
2 Units  
SOC 35Y  
3 Units  
SOC 35Z  
4 Units  
Any combination of SOC 35–35Z may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit.  
1 hour lecture for each unit of credit.  
Seminar in readings, research, critical techniques and practice. Specific topics vary. [Transferability: CSU]

**SOC 36**  
SPECIAL PROJECTS IN SOCIOLOGY  
1 Unit  
SOC 36X  
2 Units  
SOC 36Y  
3 Units  
SOC 36Z  
4 Units  
Any combination of SOC 36–36Z may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit.  
1 hour lecture for each unit of credit.  
Advanced readings, research and/or project in sociology. Specific topics determined in consultation with instructor. [Transferability: CSU]

**SOC 40**  
ASPECTS OF MARRIAGE & FAMILY  
4 Units  
4 hours lecture.  
Survey of empirical studies conducted by family sociologists from varied theoretical orientations. Focus on social influences affecting the American expressions of intimate life styles related to relationships, marriage and family systems. Exposure to the methods of social research. [Foothill GE: Lifelong Understanding, Social & Behavioral Sciences; Transferability: UC/CSU]

**SOC 57**  
CHILD ADVOCACY  
4 Units  
4 hours lecture.  
Explores the socio-historical context of child welfare systems. Uses a variety of different theoretical explanations for the existence of child abuse and/or neglect. Examines child welfare and advocacy in its race, class and gender perspectives. Explains relationships between the child, the child welfare system and the larger society. Analyzes the impact of child advocacy policy and various issues in child welfare on children. Explores the influence of child advocacy on children in contemporary society and its impact on their life outcomes. [Transferability: CSU]

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### SOCIAL SCIENCE

**SOC 20**  
CROSS-CULTURAL PERSPECTIVES FOR A MULTICULTURAL SOCIETY  
4 Units  
4 hours lecture.  
Analysis of the multiethnic forms of cultural domination and its diverse manifestation in society, emphasizing European and Third World cultures. Examination of the values and practices of democratic participation in social institutions in those cultures. Review theories, concepts and research applicable to majority-minority issues. [Foothill GE: United States Cultures & Communities, Lifelong, Social & Behavioral Sciences; Transferability: UC/CSU]
SOSC 34H  HONORS INSTITUTE SEMINAR IN SOCIAL SCIENCE  1 Unit
Formerly: SOSC 34
Prerequisite: Honors Institute participant.
Advisory: Not open to students with credit in SOSC 34.
1 hour lecture.
A seminar in directed readings, discussions and projects in social science. Specific topics to be determined by the instructor. [Transferability: CSU; UC credit may be granted after transfer and upon portfolio review.]

SOSC 35  DEPARTMENT HONORS PROJECT IN SOCIAL SCIENCE  1 Unit
SOSC 35X 2 Units
SOSC 35Y 3 Units
SOSC 35Z 4 Units
Any combination of SOSC 35–35Z may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit. 1 hour lecture for each unit of credit.
Seminar in social science readings, research, critical techniques and analysis. Specific topics vary. [Transferability: CSU]

SOSC 36  SPECIAL PROJECTS IN SOCIAL SCIENCE  1 Unit
SOSC 36X 2 Units
SOSC 36Y 3 Units
SOSC 36Z 4 Units
Any combination of SOSC 36–36Z may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit. 1 hour lecture for each unit of credit.
Advanced readings, research, and/or project in social science. Specific topics determined in consultation with instructor. [Transferability: CSU]

SOSC 37  INTRODUCTION TO CULTURAL PROGRAM  1 Unit
May be taken 4 times for credit.
3 hours laboratory.
practical field experience for students in cultural heritage month leadership positions. [Transferability: CSU]

SOSC 79  INTRODUCTION TO COMMUNITY SERVICE  1 Unit
May be taken 3 times for credit.
3 hours laboratory.
Introduction to theories and methods of effective volunteer participation in community service, including assessing community needs, role of the volunteer, relationship with public agencies. [Transferability: CSU]

SOSC 155  STANDARDIZED TEST PREPARATION .5 Unit
Advisory: Pass/No Pass.
May be taken 6 times for credit.
.5 hour lecture for each .5 unit of credit.
Test-taking strategies for standardized college entrance tests. Analysis of test structure and content. Identification of areas of weakness; practice with those areas.

SOSC 175  TUTOR TRAINING METHODS .5 Unit
Prerequisite: Employment as a tutor; grade of “A” in courses in which the student will be tutoring; letter of recommendation from Foothill instructor in corresponding course.
May be taken 3 times for credit.
.5 hour lecture.
Introduction to theories and methods of effective tutoring, including role of a tutor, relationship of tutor to students and faculty. [Transferability: CSU]
SPAN 13A INTERMEDIATE CONVERSATION I 4 Units
Prerequisite: SPAN 3.
Advisory: May be taken concurrently with SPAN 4.
May be taken 6 times for credit.
4 hours lecture.
Continuation of SPAN 13 A. Review and development of oral and listening communication skills in the targeted functions studied in first-year Spanish with attention to fluency, vocabulary, idiom, and pronunciation. Emphasis on the difference between spoken and literary Spanish as well as the variation in language depending upon the topic, the setting, and the country. Discussion and analysis of cultural and historical issues based on authentic texts, current news broadcasts, and/or films. [Foothill GE: Humanities; Transferability: UC/CSU]

SPAN 13B INTERMEDIATE CONVERSATION II 4 Units
Prerequisite: SPAN 13A.
Advisory: May be taken concurrently with SPAN 5.
May be taken 6 times for credit.
4 hours lecture.
Continuation of SPAN 13 B. Designed to give students practice in oral/aural communication skills in an environment of increasingly challenging language situations. Practice on idioms and vocabulary as different from the usage of formal, written and literary language. Work on differentiating and choosing the culturally appropriate register for a given situation. Discussion of the cultural manifestations and history of the Spanish-speaking world, including that of the Latino population of the U.S. [Foothill GE: Humanities; Transferability: UC/CSU]

SPAN 14A ADVANCED CONVERSATION I 4 Units
Prerequisite: SPAN 13B.
Advisory: May be taken concurrently with SPAN 5.
May be taken 6 times for credit.
4 hours lecture.
Continuation of SPAN 13B. Designed to give students practice in oral/aural communication skills in an environment of increasingly challenging language situations. Practice on idioms and vocabulary as different from the usage of formal, written and literary language. Work on differentiating and choosing the culturally appropriate register for a given situation. Discussion of the cultural manifestations and history of the Spanish-speaking world, including that of the Latino population of the U.S. [Foothill GE: Humanities; Transferability: UC/CSU]

SPAN 14B ADVANCED CONVERSATION II 4 Units
Prerequisite: SPAN 14A.
Advisory: May be taken concurrently with SPAN 6.
May be taken 6 times for credit.
4 hours lecture.
Continuation of SPAN 14A. Designed to give students practice in oral/aural communication skills in an environment of increasingly challenging language situations. Evaluation and response to real, current material: politics, literature, art, music, film. Critical analysis of the cultural manifestations and history of the Spanish-speaking world, including the Latino population of the U.S. Evaluation of the cultural values inherent in conversation. Integration of cultural competency into conversation skills: what’s appropriate in a given culture (in terms of register, vocabulary and values) and in a given setting within that culture. [Foothill GE: Humanities; Transferability: UC/CSU]

SPAN 25A ADVANCED COMPOSITION & READING I 4 Units
Prerequisite: SPAN 6.
4 hours lecture.
Extensive reading and analysis of original Spanish literary and non-literary sources from Spanish speaking countries and the Hispanic communities in the US, such as newspapers, reports, films and music. Intensive discussion and writing based on these readings to promote a critical appreciation of Hispanic culture, society and history. Understanding of the use of advanced grammar in writing communication. Instruction in Spanish. [Foothill GE: Humanities; Transferability: UC/CSU]

SPAN 25B ADVANCED COMPOSITION & READING II 4 Units
Prerequisite: SPAN 25A.
4 hours lecture.
Continuation of SPAN 25A. Extensive reading and analysis of texts with emphasis on literary works such as short stories, essays and poems. Critical analysis of the major political, historical and social issues exposed in these texts. Writing of extended term papers and compositions using advanced grammar. Understanding and appreciating the ambiguities, vagaries and value inherent in the target language. Instruction in Spanish. [Foothill GE: Humanities; Transferability: UC/CSU]

SPAN 236 SPECIAL PROJECTS IN SPANISH 1 Unit
SPAN 236Y 3 Units
SPAN 236Z 4 Units
Formerly: SPAN 36
Prerequisite: SPAN 5.
Advisory: Enrollment for this course is available in the Language Arts Division Office. 1 hour lecture for each unit of credit.
A study oriented toward spoken and/or written practice in Spanish. Development of research and critical techniques adapted to individual writing and/or oral presentation projects under instructor supervision. Not to be substituted for departmental requirements. [Foothill GE: Humanities; Transferability: This course does not transfer.]

THEATRE ARTS

Fine Arts & Communication (650) 949-7262

THTR 1 THEATRE ARTS APPRECIATION 4 Units
Formerly: DRAM 1
Advisory: Not open to students with credit in DRAM 1.
4 hours lecture, 1 hour laboratory.
Live performance in an electronic age - an overview of the status of live theatre including its historical, cultural and spiritual roots. [Foothill GE: Humanities; Transferability: UC/CSU]

THTR 2A INTRODUCTION TO DRAMATIC LITERATURE 4 Units
Formerly: DRAM 2A
Prerequisite: Eligibility for ENGL 1A.
Advisory: Not open to students with credit in ENGL 42A or DRAM 2A.
4 hours lecture.
Analysis of representative masterpieces of dramatic literature from Aeschylus to the English Renaissance Period and including Asian Theatre. [Foothill GE: Humanities; Transferability: UC/CSU]

THTR 2B INTRODUCTION TO DRAMATIC LITERATURE 4 Units
Formerly: DRAM 2B
Prerequisite: Eligibility for ENGL 1A.
Advisory: Not open to students with credit in ENGL 42B or DRAM 2B.
4 hours lecture.
Analysis of representative masterpieces of dramatic literature from the Elizabethan Period to the end of the 19th Century. [Foothill GE: Humanities; Transferability: UC/CSU]

THTR 2C INTRODUCTION TO DRAMATIC LITERATURE 4 Units
Formerly: DRAM 2C
Prerequisite: Eligibility for ENGL 1A.
Advisory: Not open to students with credit in ENGL 42C or DRAM 2C.
4 hours lecture.
Analysis of representative masterpieces of dramatic literature from the beginning of the 20th Century to the present. [Foothill GE: Humanities; Transferability: UC/CSU]
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<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
<th>Prerequisites</th>
<th>Advisory</th>
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</tr>
</thead>
<tbody>
<tr>
<td>THTR 5B</td>
<td>PLAYWRITING</td>
<td>4 Units</td>
<td>Formerly: DRAM 5B, DRAM 55B</td>
<td>Prerequisite: ENGL 1A eligible.</td>
<td>May be taken 6 times for credit.</td>
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<td>Advisory: Not open to students with credit in CRWR 36B, DRAM 5B, 55B or VART 5B.</td>
<td>4 hours lecture, 1 hour laboratory.</td>
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<td>Introduction to writing for the stage. Examination and practice of story structure, character development, dialogue crafting, with an emphasis on understanding the unique visual and imaginative nature of writing for the theatre. [Foothill GE: Humanities; Transferability: UC/CSU]</td>
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<tr>
<td>THTR 6</td>
<td>ADVANCED PLAYWRITING</td>
<td>4 Units</td>
<td>Formerly: DRAM 6</td>
<td>Prerequisite: THTR 5B.</td>
<td>May be taken 6 times for credit.</td>
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<td></td>
<td>4 hours lecture, 1 hour laboratory. Writing for the stage. Advanced examination and practice of story structure, character development, dialogue crafting, with an emphasis on understanding the unique visual and imaginative nature of writing for the theatre. [Transferability: UC/CSU]</td>
<td></td>
</tr>
<tr>
<td>THTR 7</td>
<td>INTRODUCTION TO DIRECTING</td>
<td>4 Units</td>
<td>Formerly: DRAM 7</td>
<td>Advisory: THTR 20A or equivalent.</td>
<td>May be taken 3 times for credit.</td>
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<td>3 hours lecture, 3 hours laboratory. The qualifications of the director; the choice of plays for production; auditions and methods of casting; preparation of the play script; building the rehearsal schedule; fundamentals of composition, movement, stage business and characterization as applied to the directing of plays. [Transferability: UC/CSU]</td>
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<tr>
<td>THTR 8</td>
<td>MULTICULTURAL PERFORMING ARTS</td>
<td>4 Units</td>
<td>Formerly: DRAM 8</td>
<td>Advisory: Not open to students with credit in DRAM 8.</td>
<td>4 hours lecture, 1 hour laboratory.</td>
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<td>A comparative study of the important post-modern American performance movements from the 1950’s to the present day examining the specific cultural traditions of these performances. Focus will be on the performance artists and major influences of African Americans, Asian Americans, Native Americans, European Americans, and Chicano/Latino Americans and the cultural movements that inspired these performances. [Foothill GE: United States Cultures &amp; Communities, Human; Transferability: UC/CSU]</td>
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<tr>
<td>THTR 20A</td>
<td>ACTING I</td>
<td>4 Units</td>
<td>Formerly: DRAM 20A</td>
<td>3 hours lecture, 3 hours laboratory. Introduction to the craft of acting, including theory and technique emphasizing body movement, voice production, articulation, characterization principles of motivation, scene analysis, through standard theatre games, exercises, monologues, and scenes. [Foothill GE: Humanities; Transferability: UC/CSU]</td>
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<tr>
<td>THTR 20AL</td>
<td>ACTING LABORATORY I</td>
<td>1 Unit</td>
<td>Formerly: DRAM 20AL</td>
<td>Advisory: Not open to students with credit in DRAM 20AL.</td>
<td>3 hours laboratory. Supervised study and rehearsal in acting projects. 3 hours supervised practice. [Transferability: UC/CSU]</td>
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<tr>
<td>THTR 20B</td>
<td>ACTING II</td>
<td>4 Units</td>
<td>Formerly: DRAM 20B</td>
<td>Advisory: THTR 20A or equivalent highly recommended.</td>
<td>3 hours lecture, 3 hours laboratory. Further development of the concepts introduced in THTR 20A, and THTR 20B with targeted performance assignments designed to develop the advanced student's range and ability in approaching demanding actor challenges. [Foothill GE: Humanities; Transferability: UC/CSU]</td>
</tr>
<tr>
<td>THTR 20C</td>
<td>ACTING III</td>
<td>4 Units</td>
<td>Formerly: DRAM 20C</td>
<td>Advisory: THTR 20A &amp; 20B or equivalent highly recommended.</td>
<td>3 hours lecture, 3 hours laboratory. Further development of the concepts introduced in THTR 20A and 20B with focus on the performance of selected scenes from works of specific periods to acquaint students with the breadth of theatre performance literature. [Foothill GE: Humanities; Transferability: UC/CSU]</td>
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<tr>
<td>THTR 20CL</td>
<td>ACTING LABORATORY III</td>
<td>1 Unit</td>
<td>Formerly: DRAM 20CL</td>
<td>Advisory: Not open to students with credit in THTR 20CL.</td>
<td>Corequisite: THTR 20C. 3 hours laboratory. Supervised study and rehearsal in acting projects. [Transferability: UC/CSU]</td>
</tr>
<tr>
<td>THTR 20D</td>
<td>ACTING IV</td>
<td>4 Units</td>
<td>Formerly: DRAM 20D</td>
<td>Advisory: THTR 20A, THTR 20B and THTR 20C or equivalent highly recommended; sections of this class are frequently featured in the Foothill Theatre Conservatory schedule, requiring instructor approval. 3 hours lecture, 3 hours laboratory.</td>
<td>Further development of the concepts introduced in THTR 20A, 20B and 20C with focused exploration and examination of a selected specific area, genre or period style. [Foothill GE: Humanities; Transferability: UC/CSU]</td>
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<tr>
<td>THTR 20DL</td>
<td>ACTING LABORATORY IV</td>
<td>1 Unit</td>
<td>Formerly: DRAM 20DL</td>
<td>Advisory: Not open to students with credit in DRAM 20DL.</td>
<td>3 hours laboratory. Supervised study and rehearsal in acting projects. [Transferability: UC/CSU]</td>
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<tr>
<td>THTR 20E</td>
<td>ADVANCED ACTING V</td>
<td>4 Units</td>
<td>Formerly: DRAM 20E</td>
<td>Advisory: THTR 20A, THTR 20B, THTR 20C, and THTR 20D or equivalent is highly recommended; sections of this class are frequently offered through the Foothill Theatre Conservatory requiring instructor approval. May be taken 6 times for credit. 3 hours lecture, 3 hours laboratory. Further development of concepts introduced in THTR 20A, THTR 20B, THTR 20C, and THTR 20D with targeted performance assignments designed to develop the advanced student’s range and ability in approaching demanding actor challenges. [Transferability: UC/CSU]</td>
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<tr>
<td>THTR 20EL</td>
<td>ACTING LABORATORY V</td>
<td>1 Unit</td>
<td>Formerly: DRAM 20EL</td>
<td>Advisory: THTR 20A, THTR 20B, THTR 20C, and THTR 20D or equivalent is highly recommended; sections of this class are frequently offered through the Foothill Theatre Conservatory requiring instructor approval. May be taken 6 times for credit. 3 hours laboratory. Supervised study and rehearsal in acting projects. [Transferability: UC/CSU]</td>
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<tr>
<td>THTR 21</td>
<td>INTRODUCTION TO TECHNICAL THEATRE</td>
<td>1 Unit</td>
<td>Formerly: DRAM 21</td>
<td>Advisory: Concurrent enrollment in THTR 21A; not open to students with credit in DRAM 21. 1 hour lecture. An introduction to the theory and techniques used in the production of scenery, properties, lighting, costumes and sound for stage, film and television. [Transferability: UC/CSU]</td>
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</table>
THTR 21A SCENERY & PROPERTY CONSTRUCTION 3 Units
Formerly: DRAM 21A
Advisory: Not open to students with credit in DRAM 21A. Corequisites: THTR 21.
6 hours lecture-laboratory.
Practical experience in creating and using scenery and properties for department dramatic presentations. Safe use of basic hand and power tools used in the construction of scenery and properties for the stage. [Transferability: UC/CSU]

THTR 21B INTERMEDIATE SCENERY & PROPERTY CONSTRUCTION 3 Units
Formerly: DRAM 21B
Prerequisite: THTR 21B.
Advisory: Not open to students with credit in DRAM 21B. 6 hours lecture-laboratory.
Continuation of THTR 21A. Practical experience in creating and using scenery and properties for department dramatic presentations. Safe use of basic hand and power tools used in the construction of scenery and properties for the stage. [Transferability: UC/CSU]

THTR 21C ADVANCED SCENERY & PROPERTIES CONSTRUCTION 3 Units
Formerly: DRAM 21C
Prerequisite: THTR 21B.
Advisory: Not open to students with credit in DRAM 21C. May be taken 4 times for credit. 6 hours lecture-laboratory.
Continuation of THTR 21B. Practical experience in creating and using scenery and properties for department dramatic presentations. Safe use of basic hand and power tools used in the construction of scenery and properties for the stage. [Transferability: UC/CSU]

THTR 34H HONORS INSTITUTE SEMINAR IN THEATRE ARTS 1 Unit
Formerly: DRAM 34
Prerequisite: Honors Institute participant. Advisory: Not open to students with credit in DRAM 34.
1 hour lecture.
A seminar in directed readings, discussions and projects in theatre arts. [Transferability: CSU; UC credit may be granted after transfer and upon portfolio review.]

THTR 35 DEPARTMENT HONORS PROJECTS 2 Units
Formerly: DRAM 35
Prerequisite: Enrollment subject to audition. May be taken 6 times for credit. 7 hours laboratory.
Individual advanced projects in acting, theatre production, stage craft, design or theatre research. [Transferability: CSU]

THTR 38 MOVEMENT PRACTICUM FOR THE ACTOR 2 Units
Formerly: DRAM 38
Corequisite: Completion of, or concurrent enrollment in the Foothill Theatre Conservatory. May be taken 6 times for credit. 1.5 hours lecture, 1.5 hours laboratory.
A one quarter, intensive investigation of one or more of the following areas of stage movement for the actor: Body awareness, flexibility, alignment, balance, muscle isolation and coordination; stress reduction and relaxation on stage; breath control; recognized theories of movement; stage combat; historical styles of movement; characterization through movement; mask technique; dance for the actor; physical safety. The application of these skills to the performance of dramatic literature from a wide range of ethnic, social and historical sources. [Transferability: UC/CSU]

THTR 40A BASIC THEATRICAL MAKE-UP 4 Units
Formerly: DRAM 40A
Advisory: Not open to students with credit in DRAM 40A. 3 hours lecture, 3 hours laboratory.
A practical introduction to the techniques of applying theatrical make-up for the stage. [Transferability: UC/CSU]

THTR 40AL THEATRICAL MAKE-UP LABORATORY 1 Unit
Formerly: DRAM 40AL
Advisory: Not open to students with credit in DRAM 40AL.
3 hours laboratory.
Supervised study and practice in stage make-up and application techniques. [Transferability: UC/CSU]

THTR 40B THEATRICAL MAKE-UP FOR PRODUCTION 4 Units
Formerly: DRAM 40B
Prerequisite: THTR 40A.
May be taken 2 times for credit. 3 hours lecture, 3 hours laboratory.
Continuation of work in THTR 40A with emphasis in more advanced techniques and practical application experience for the stage. [Transferability: UC/CSU]

THTR 40BL THEATRICAL MAKE-UP LABORATORY 1 Unit
Formerly: DRAM 40BL
Advisory: Not open to students with credit in DRAM 40B.
May be taken 2 times for credit. 3 hours laboratory.
Supervised study and practice in advanced stage make-up and application techniques. [Transferability: UC/CSU]

THTR 42A INTRODUCTION TO SCENE DESIGN 4 Units
Formerly: DRAM 42A
Prerequisite: THTR 72 or equivalent. Advisory: Not open to students with credit in DRAM 42A.
3 hours lecture, 3 hours laboratory.
Theory and practice of three dimensional scene design and scenic painting using traditional and digital tools. Includes research and analysis; two-dimensional and three-dimensional set design; theatrical sketching, drafting, rendering and model making and the use of computer graphics software and equipment to create three-dimensional design for Performing Arts, Film, TV and Multimedia CD ROM and WWW. [Transferability: UC/CSU]

THTR 44 PRODUCTION PROJECTS 4 Units
Formerly: DRAM 44
Prerequisite: THTR 20A. May be taken 6 times for credit. 6 hours lecture-laboratory, 3 hours laboratory.
An intensive training experience in all areas of theatre, culminating in a practical theatre production. Areas of study and investigation include acting techniques, voice and diction, oral interpretation, movement and dance, theatre literature and history, stage management and other technologies related to production. Culminates in a full-scale public performance, with students taking charge of all areas of production. [Transferability: UC/CSU]

THTR 46 VOICE & DICTION 4 Units
Formerly: DRAM 46
Advisory: Not open to students with credit in COMM 46 or DRAM 46. 3 hours lecture, 3 hours laboratory.
An introductory study of the anatomy and physiology of the vocal mechanism. Development of voice and articulation with an emphasis on standard American speech for the stage. [Transferability: UC/CSU]
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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>THTR 47</td>
<td>MUSIC THEATRE</td>
<td>3</td>
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<tr>
<td>THTR 47X</td>
<td>PRODUCTION WORKSHOP</td>
<td>6</td>
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<tr>
<td>THTR 47Y</td>
<td></td>
<td>10</td>
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<tr>
<td><strong>Formerly:</strong> DRAM 47</td>
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<td>Advisory: Admission by instructor approval.</td>
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<td>Any combination of THTR 47–47Y may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit. 9 hours laboratory. A laboratory course in musical theatre stage production. Acting, singing, dance, lighting, costuming, scene design, properties, set-construction, make-up, publicity and promotion will be studied in the production of a full-scale major musical play for public performance. [Transferability: UC/CSU]</td>
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<tr>
<td>THTR 48</td>
<td>VOICE PRACTICUM FOR THE ACTOR</td>
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<td><strong>Formerly:</strong> DRAM 48</td>
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<td>Prerequisite: Completion of or concurrent enrollment in the Foothill Theatre Conservatory. May be taken 6 times for credit. 1.5 hours lecture, 1.5 hours laboratory. A one quarter, intensive investigation of one or more of the following areas of voice study for the actor: principles of vocal production; breathing techniques; vocal work adapted to a variety of performance settings; employment of International Phonetic Alphabet; dialects; voice-over, on-camera and other voice-amplified experiences; singing techniques for the actor. The application of these skills to the performance of dramatic literature from a wide range of ethnic, social and historical sources. [Transferability: UC/CSU]</td>
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<td>THTR 49</td>
<td>REHEARSAL &amp; PERFORMANCE</td>
<td>2</td>
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<td>THTR 49X</td>
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<td>4</td>
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<tr>
<td>THTR 49Y</td>
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<tr>
<td>THTR 49Z</td>
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<td>8</td>
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<td><strong>Formerly:</strong> DRAM 49</td>
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<td>Prerequisite: Enrollment subject to audition.</td>
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<td>Any combination of THTR 49–49Y may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit. 3 hours lecture-laboratory, 2 hours laboratory for 2 units of credit. Supervised participation in scheduled productions of the Theatre Arts Department, in cast or crew. Enrollment in each course is for the duration of the production. [Transferability: UC/CSU]</td>
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<tr>
<td>THTR 50</td>
<td>PRODUCTION PROJECTS IN THEATRE</td>
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<td><strong>Formerly:</strong> DRAM 50</td>
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<td>May be taken 6 times for credit. 1 hour lecture-laboratory, 5 hours laboratory. This course teaches the full development of an organic, original production from inception to performance. Under the guidance and supervision of the instructor who initiates the process, students will be entirely charged to produce a full-length production consisting of several student-generated short plays. Student responsibilities will extend to the areas of writing, acting, directing, lighting design, costume design, scenery and properties design, sound design, make-up design and publicity. The quarter culminates with several public performances. [Transferability: CSU; UC approval is pending.]</td>
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<tr>
<td>THTR 53</td>
<td>AUDITIONING FOR THEATRE</td>
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<td>THTR 53X</td>
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<td><strong>Formerly:</strong> DRAM 53</td>
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<td>Advisory: THTR 20A or equivalent. May be taken 6 times for credit. 1.5 hours lecture, 1.5 hours laboratory. Students will be introduced to a variety of different possible auditioning scenarios and strategies. With a focus on stage techniques, the class will be largely oriented towards a theory into practical practice approach which will include such topics as monologues for general auditions, building a repertoire, circumstances for cold readings and possible improvisation situations. Additionally, students will be introduced to theories of preparation and etiquette as well as informational resources. [Transferability: CSU; UC approval is pending for THTR 53X.]</td>
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<tr>
<td>THTR 54</td>
<td>ACTOR’S WORKSHOP</td>
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<td><strong>Formerly:</strong> DRAM 54</td>
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<td>Prerequisite: THTR 20C. May be taken 6 times for credit. 2 hours lecture, 2 hours lecture-laboratory. Further development of concepts introduced in THTR 20A, 20B and 20C through incorporating extensive participation in the performance of selected scenes from plays of various types and periods or advanced improvisational techniques. [Transferability: UC/CSU]</td>
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<tr>
<td>THTR 58</td>
<td>MOVEMENT FOR THE ACTOR: STAGE COMBAT</td>
<td>1</td>
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<td><strong>Formerly:</strong> DRAM 58</td>
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<td>May be taken 2 times for credit. .75 hour lecture, .75 hour laboratory. Introduction to the concepts and practice of choreographed combat for stage and camera. Emphasis on safety concepts required for all stage combat circumstances. Techniques introduced include hand to hand maneuvers and small weapons. [Transferability: UC/CSU]</td>
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<tr>
<td>THTR 61</td>
<td>THE THEATRE LIVE ON-STAGE</td>
<td>2</td>
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<td><strong>Formerly:</strong> DRAM 61</td>
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<td>May be taken 6 times for credit. 1 hour lecture, 3 hours laboratory. A directed, systematic examination of selected works of dramatic literature presented on the living stage, with particular emphasis on the contributing production values that make up their presentation. Attendance at outstanding Bay Area or other geographically specific regional theatre companies, discussion and analysis of works seen, presentations by contributing artists. Costs of theatre admission and responsibility for transportation are borne by the student. [Transferability: UC/CSU]</td>
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<tr>
<td>THTR 62</td>
<td>ACTING FOR FILM &amp; TELEVISION</td>
<td>2</td>
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<tr>
<td>THTR 62X</td>
<td></td>
<td>4</td>
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<tr>
<td><strong>Formerly:</strong> DRAM 62</td>
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<td>Prerequisite: THTR 20A. May be taken 6 times for credit. 1.5 hours lecture, 1.5 hours laboratory. Application of concepts introduced in THTR 20A with the necessary adaptations required for film and television performance. Work with the commercial, dramatic, documentary and industrial styles currently used in film and television. [Transferability: CSU; UC approval is pending for THTR 62X.]</td>
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<tr>
<td>THTR 71</td>
<td>FUNDAMENTALS OF STAGE MANAGEMENT</td>
<td>4</td>
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<tr>
<td>THTR 71X</td>
<td></td>
<td>2</td>
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<tr>
<td><strong>Formerly:</strong> DRAM 71</td>
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<td>Advisory: THTR 20A or concurrent enrollment in THTR 21A, 21B, or 21C; not open to students with credit in DRAM 71. 2 hours lecture for each unit of credit. An introduction to stage management techniques in form and function for the theatre. Fundamentals of stage management procedures related to the rehearsal process. Practices in production administration through the use of stage management forms. [Transferability: CSU; UC approval is pending for THTR 71X.]</td>
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<tr>
<td>THTR 72</td>
<td>DRAFTING FOR THE THEATRE, FILM &amp; TELEVISION</td>
<td>4</td>
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<td><strong>Formerly:</strong> DRAM 72</td>
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<td>May be taken 3 times for credit. 3 hours lecture, 3 hours laboratory. Survey of drafting techniques for the theatre, film and television. Introduction to the basic elements of graphic expression and techniques used in presenting stage designs for designers and technicians working in the performing arts. Use of instruments, lettering, geometric construction, orthographic projection and technical sketching to present ground plans, elevations and working drawings. Use of computers to draft theatre designs. [Transferability: CSU]</td>
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</tbody>
</table>
THTR 72B BEGINNING CAD DRAFTING FOR THE 4 Units
THEATRE, FILM & TELEVISION
Formerly: DRAM 72
Advisory: Not open to students with credit in DRAM 72.
3 hours lecture, 3 hours laboratory.
Survey of computer drafting techniques for the theatre, film and television. Introduction to the basic elements of graphic expression and techniques used in presenting stage designs for designers and technicians working in the performing arts. Use of computer technology to present ground plans, elevations and working drawings for theatre designs. [Transferability: UC/CSU]

THTR 74 THEATRE SOUND DESIGN 4 Units
Formerly: DRAM 74
Corequisite: Completion of or concurrent enrollment in THTR 21A, B, or C.
Advisory: Not open to students with credit in DRAM 74.
3 hours lecture, 3 hours laboratory.
A survey of sound design and technology for the theatre. Use of recording and playback equipment. Exploration of sound design as an artistic element in stage productions. Research in sound control, amplification, acoustics, preparation of sound tracks, use of reinforcement systems, and intercommunication systems. [Transferability: UC/CSU]

THTR 75 INTRODUCTION TO FASHION & COSTUME CONSTRUCTION 4 Units
Formerly: DRAM 75
Advisory: Completion of, or concurrent enrollment in THTR 21A, 21B or 21C recommended.
May be taken 6 times for credit.
2 hours lecture, 4 hours lecture-laboratory.
An introduction to sewing techniques, pattern cutting, costume room equipment and the design and fabrication of clothing and costumes for the theatre and stage. [Transferability: UC/CSU]

THTR 76 INTRODUCTION TO FASHION HISTORY & COSTUME DESIGN 4 Units
Formerly: DRAM 76
Advisory: Not open to students with credit in DRAM 76.
4 hours lecture.
A survey of western historic fashion and costume for women and men from ancient times to the present, including the cultural and political events that shaped each era and it’s clothing. An introduction to the design elements: color, line, form texture and silhouette and a brief introduction to the use of graphic techniques in the presentation of fashion and costume designs. Analysis of the artistic styles of each era as they relate to understanding costume detail and stylization. [Transferability: UC/CSU]

THTR 77 INTRODUCTION TO LIGHTING DESIGN & TECHNOLOGY 4 Units
Formerly: DRAM 77
Corequisite: Completion of, or concurrent enrollment in THTR 21A, B, or C.
May be taken 3 times for credit.
3 hours lecture, 3 hours laboratory.
A survey of lighting design for the theatre, film and television. An introduction to the basic elements of electrical wiring, lighting instruments, lighting control devices, and lighting special effects. Use of computer to design stage lighting. [Transferability: UC/CSU]

THTR 79 MODEL BUILDING FOR THEATRE, 4 Units
FILM & TELEVISION
Formerly: DRAM 79
Advisory: Not open to students with credit in DRAM 79.
3 hours lecture, 3 hours laboratory.
A survey of model building techniques for the theatre, film and television. Introduction to the basic tools and materials used to construct and present preliminary and finished design models. [Transferability: CSU; UC approval is pending.]

THTR 80 RECORDING ARTS I: SOUND REINFORCEMENT 4 Units
Formerly: DRAM 80
Advisory: Not open to students with credit in DRAM 80 or MUS 80 or 80A.
2 hours lecture, 2 hours lecture-laboratory, 3 hours laboratory.
Introduction to fundamental concepts and techniques of mixing boards, amplifiers, microphones, signal processors and their application to both live and studio sound reinforcement. Basic introduction to computer based recording with Digidesign’s Pro Tools®. Microphone placement, physics of sound as it relates to recording, sound reinforcement and studio setup techniques. [Transferability: CSU]

THTR 81 CONTEMPORARY ISSUES IN PERFORMANCE SEMINAR 1 Unit
Formerly: DRAM 81
Corequisites: Enrollment in the Foothill Theatre Conservatory. May be taken 6 times for credit.
1 hour lecture, .5 hour laboratory.
A seminar in directed readings, discussions, performance analysis and projects encompassing contemporary performance trends and the business of the entertainment industry. Specific topics to be determined by the instructor. [Transferability: CSU]

THTR 85 DIRECTED FIELD STUDY IN THEATRE 1 Unit
THTR 85X 2 Units
THTR 85Y 3 Units
THTR 85Z 4 Units
Formerly: DRAM 85
Any combination of THTR 85, 85X, 85Y, 85Z may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit.
1 hour lecture, 2 hours laboratory for each unit of credit.
In-depth, intensive field study experience in a selected major center of theatrical production, such as London or New York. Attendance at professional theatre productions; meeting with playwrights, directors, designers, choreographers, actors and critics; touring backstage facilities, costume and scenic studios, and theatrical history museums and exhibits. All costs are borne by the student. [Transferability: CSU]

THTR 87 ACTORS’ ENSEMBLE 1 Unit
THTR 97X 2 Units
THTR 97Y 4 Units
THTR 97Z 6 Units
Formerly: DRAM 97
Prerequisite: Enrollment subject to audition.
Any combination of THTR 97 & 97X may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit.
12 hours laboratory for each three units of credit.
1 hour lecture-laboratory, 2 hour laboratory for each unit of credit.
A laboratory course in Summer Stock stage production. Acting, lighting, costuming, scene design, set construction, properties, make-up will be investigated in a practical setting. Students will experience the public performance of several plays presented within a demanding schedule. [Transferability: UC/CSU]

THTR 88 RECORDING ARTS II: 3 Units
SOFTWARE APPLICATIONS
THTR 88X
THTR 88Y
THTR 88Z
Formerly: DRAM 88
Advisory: Enrollment subject to audition.
Any combination of THTR 88, 88X, 88Y, 88Z may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit.
1 hour lecture-laboratory, 2 hour laboratory for each unit of credit.
A course in performance and/or rehearsal of varied dramatic forms designed for public performance of original, established or touring works. All aspects of theatre may be covered, including acting, directing, playwriting, lighting, costuming, scene design, set construction and make-up for the theatre. Students will prepare for staged productions for public performance in potentially differing spaces. [Transferability: UC/CSU]
V T 51  INTRODUCTION TO VETERINARY TECHNOLOGY
1 hour lecture, 2 hours lecture-laboratory.
A prerequisite for admission to the Veterinary Technology Program. Orientation to the program, and a survey of the role of the veterinary technician in the workplace. Survey of employment opportunities and areas of specialization. Ethics and professionalism. Laws and regulations governing veterinary technicians. Introduction to basic animal care skills and clinical procedures. [Transferability: CSU]

V T 52A  VETERINARY ASSISTING I
5 Units
5 hours lecture.
First in a two-course series in the theory and practice of Veterinary Assisting focusing on the knowledge, skills, and attitudes required for competent paraprofessional support to the Veterinarian (DVM) and to the Registered Veterinary Technician (RVT). You will prepare for an exciting new career as a veterinary assistant by learning the essential knowledge and hands-on skills of the Veterinary Assistant. Emphasis is on the practical aspects of front office management, working as part of the veterinary health care team, basic animal care, and basic aspects of patient management under direct supervision. The course is entirely online and may be taken as a stand-alone class or may be combined with VT 52B and a Clinical Preceptorship (VT 87A & B) to earn a Veterinary Assisting Program Certificate of Completion. [Transferability: CSU]

V T 52B  VETERINARY ASSISTING II
5 Units
5 hours lecture.
Second in a two-course series in the theory and practice of Veterinary Assisting focusing on the knowledge, skills, and attitudes required for competent paraprofessional support to the Veterinarian (DVM) and to the Registered Veterinary Technician (RVT). You will prepare for an exciting new career as a veterinary assistant by learning the essential knowledge and hands-on skills of the Veterinary Assistant. Emphasis is on basic clinical skills and common procedures. Assisting with routine exam room, treatment room; clinical laboratory and radiologic procedures; administration of medication, animal grooming, instrument cleaning and care; surgical preparation and operating room assisting; patient record keeping and client communication. The course is entirely online and may be taken as a stand-alone class or may be combined with VT 52A and a Clinical Preceptorship (VT 87A & B) to earn a Veterinary Assisting Program Certificate of Completion. [Transferability: CSU]

V T 53A  MEDICAL TERMINOLOGY
1 Unit
2 hours lecture-laboratory.
A guided self-study of medical terminology as a fundamental communication skill. Basic word parts and rules of word construction. A review of common medical terms pertaining to the different body systems, with emphasis on those terms peculiar to veterinary medicine. [Transferability: CSU]

V T 53B  MEDICAL CALCULATIONS
1 Unit
2 hours lecture-laboratory.
Applied mathematics as a fundamental communication and technical skill. Review of calculations involving fractions, decimals, ratios and proportions, unit conversions, and algebraic equations. Clinical medical calculations utilized in preparation and administration of drugs, dosage determinations, intravenous fluid infusion, and prescription dispensing. [Transferability: CSU]

V T 53C  INTRODUCTION TO LARGE ANIMAL CARE
1 Unit
2 hours lecture-laboratory, 1 hour case study.
Introduction to principles of husbandry and medical care of common domestic large animal species. Breed identification; housing and restraint; nutrition and feeding; common infectious diseases and vaccinations; equine physical exam and common lameness; equine colic; common large animal clinical procedures. [Transferability: CSU]

V T 53D  INTRODUCTION TO DAIRY CATTLE HEALTH MANAGEMENT
2 Units
1 hour lecture, 2 hours lecture-laboratory.
A series of 1 hour lectures, live demonstrations, and hands-on practical experiences. All instruction will take place on the farm at Hidden Villa. Introduction to the principles of the husbandry and health management of sheep and dairy goats. Breed identification; housing and restraint; nutrition and feeding; common infectious disease; and vaccinations;
common internal and external parasite management; common veterinary treatments and food animal drug restrictions; breeding, gestation, and parturition. [Transferability: CSU]

V T 53E INTRODUCTION TO SMALL RUMINANT HEALTH MANAGEMENT 2 Units
Advisory: Must be a student in good standing in the Veterinary Technology Program or a current Hidden Villa Farm Intern.
1 hour lecture, 2 hours lecture-laboratory.
A series of lectures, live demonstrations, and hands-on sessions. All instruction will take place on the farm at Hidden Villa. Introduction to the principles of husbandry and health management of sheep and dairy goats. Breed identification; housing and restraint; nutrition and feeding; common infectious disease and vaccinations; common internal and external parasite management; common veterinary medicines and food animal restrictions; breeding, gestation, and parturition. [Transferability: CSU]

V T 53F INTRODUCTION TO SWINE HEALTH MANAGEMENT 2 Units
Advisory: Must be a student in good standing in the Veterinary Technology Program or a current Hidden Villa Farm Intern.
1 hour lecture, 2 hour lecture-laboratory.
A series of lectures, live demonstrations, and hands-on experiences All instruction will take place on the farm at Hidden Villa. Introduction to the principles of husbandry and health management of swine. Breed identification; housing and restraint; nutrition and feeding; common infectious disease and vaccinations; common internal and external parasite management; common veterinary medicines and food animal restrictions; breeding, gestation, and parturition. [Transferability: CSU]

V T 54A COMPARATIVE VETERINARY ANATOMY & PHYSIOLOGY FOR THE VETERINARY TECHNICIAN 5 Units
Prerequisite: Admission to the Veterinary Technology Program; V T 51 or equivalent. Non-V T students will be allowed to enroll with the permission of the V T Director.
Advisory: V T 54A and 54B must be taken in sequence; ENGL 1A, ESLL 26 or equivalent; CHEM 30A or equivalent.
4 hours lecture, 1 hour lecture-laboratory, 2 hours laboratory.
Comparative veterinary anatomy and physiology for veterinary technicians. This course covers the clinically relevant veterinary anatomy and physiology including a discussion of the similarities and differences among the major domestic species. Emphasis is placed on the normal structure and function of the major organ systems as the foundation for understanding pathology and the pathophysiology of disease. [Transferability: CSU]

V T 54B COMPARATIVE VETERINARY ANATOMY & PHYSIOLOGY FOR THE VETERINARY TECHNICIAN 5 Units
Prerequisite: Admission to the Veterinary Technology Program; V T 51 or equivalent; V T 54A. Non-V T students permitted to enroll with the permission of the V T director.
Advisory: V T 54A and 54B must be taken in sequence; ENGL 1A, ESLL 26 or equivalent; CHEM 30A or equivalent.
4 hours lecture, 1 hour lecture-laboratory, 2 hours laboratory.
Comparative anatomy and physiology for veterinary technicians. This course covers the clinically relevant anatomy and physiology of the major domestic animals and includes a discussion of the similarities and differences among the species. Emphasis is placed on the normal structure and function of the major organ systems as the foundation for understanding pathology and the pathophysiology of disease. [Transferability: CSU]

V T 55 ANIMAL MANAGEMENT & CLINICAL SKILLS I 4 Units
3 hours lecture, 3 hours laboratory, 1 hour internet research, 1 hour open skills laboratory.

V T 56 ANIMAL MANAGEMENT & CLINICAL SKILLS II 4 Units
3 hours lecture, 3 hours laboratory, 1 hour internet research, 1 hour open skills laboratory.
Intended for the pre-clinical training of veterinary technology students and unregistered veterinary assistants. Survey of basic responsibilities and technical duties of veterinary technicians. Clinical nutrition and feeding of the dog and cat. Reproductive anatomy and physiology of the dog and cat including common reproductive disorders. Companion animal grooming. First aid. Instruction and practical experience in the basic principles and techniques of radiography, electrocardiography; venipuncture and blood collection technique; insertion and troubleshooting of intravenous catheters. Patient examination and assessment. Bandaging, casting, and splinting. Hands-on experience performing and assisting with routine clinical diagnostic and therapeutic procedures, including dermatologic and ophthalmologic procedures, blood and urine collection and other routine veterinary clinical procedures. [Transferability: CSU]

V T 60 VETERINARY OFFICE PRACTICE 2 Units
2 hours lecture, 1 hour case study.

V T 61 ANIMAL DISEASES 5 Units
4 hours lecture, 2 hours lecture-laboratory, 1 hour internet research.
Advanced study of the common diseases of domestic animals with emphasis on the dog and cat for the veterinary technician student. Practical medical microbiology, clinical immunology. Mechanisms of disease; the host-parasite relationship and adaptive and maladaptive responses of the host. Etiology, pathogenesis, clinical signs and clinical management of selected immunological, viral, bacterial, fungal, and parasitic diseases. Principles of vaccination, disease prevention, and zoonosis. Diagnostic techniques, including gross and microscopic identification of common veterinary pathogens. [Transferability: CSU]

V T 66 EXOTIC ANIMAL CARE 1 Unit
Prerequisite: Admission to the Veterinary Technology Program; V T 51 or equivalent; required sciences and first year V T curriculum. Non-V T students allowed to enroll with permission of instructor.
Advisory: ENGL 1A, ESLL 26 or equivalent.
2 hours lecture-laboratory.
Basic understanding of the care, husbandry, clinical procedures, and medical concerns of rabbits, ferrets, guinea pigs, chinchillas, small rodents, birds, snakes, lizards, turtles. Emphasis on clinically relevant materials and activities. Designed for senior students in the Veterinary Technology Program. [Transferability: CSU]

V T 70 FUNDAMENTALS OF VETERINARY DIAGNOSTIC IMAGING 4 Units
3 hours lecture, 3 hours laboratory, 1 hour internet research.
Introduction to the principles of veterinary radiography for veterinary technician students, including radiographic terminology, physics of X-ray production and interaction with matter, occupational safety and radiation protection, radiographic exposure factors and patient positioning required for production of diagnostic films, processing of radiographic film. Discussion of equipment materials and special radiographic studies common in veterinary practice. Introduction to state-of-the-art radiographic imaging, ultrasound and nuclear medicine. [Transferability: CSU]
V T 72 PRINCIPLES OF VETERINARY DENTISTRY 2 Units
1 hour lecture, 2 hours lecture-laboratory.
Basic principles of veterinary dentistry for the veterinary technology student. Includes dental anatomy, physiology, pathophysiology, charting and instrumentation. Techniques of routine prophylaxis, discussion of periodontal disease, modes of therapy and prevention. Introduction to common dental disorders, endodontic technique, simple extractions and dental radiography. Course includes hands-on laboratory sessions using veterinary dental equipment and models, and includes the care and use of common instruments and equipment, the routine prophylaxis and dental assisting. [Transferability: CSU]

V T 75A ANIMAL CARE SKILLS 1 Unit
3 hours laboratory.
Practical application of animal care skills and principles of animal care and management using techniques and knowledge learned in the veterinary technology program. Opportunity to participate in the health care team involved in the care, management and husbandry of program livestock, companion animals and laboratory animals. Emphasis will be on the basic principles and application of clinical facility management, care of resident teaching animals, and routine maintenance duties. [Transferability: CSU]

V T 75B ANIMAL CARE SKILLS 1 Unit
3 hours laboratory.
Continuation of VT 75A. Practical application of animal care skills and principles of animal care and management using techniques and knowledge learned in the veterinary technology classroom. Opportunity to participate in the health care team involved in the care, management and husbandry of livestock, companion animals and laboratory animals. Responsibilities include medical record keeping, inventory control, and care of clinical equipment. Emphasis will be on the basic principles and application of clinical facility management, care of resident teaching animals, and routine maintenance duties. Responsibilities will expand to include medical record keeping. [Transferability: CSU]

V T 75C ANIMAL CARE SKILLS 1 Unit
3 hours laboratory.
Continuation of VT 75B. Practical application of animal care skills and principles of animal care and management using techniques and knowledge learned in the veterinary technology classroom. Opportunity to participate in the health care team involved in the care, management and husbandry of livestock, companion animals and laboratory animals. Responsibilities include medical record keeping, inventory control, and care of clinical equipment. Emphasis will be on the basic principles and application of clinical facility management, care of resident teaching animals, and routine maintenance duties. Level of responsibility increases as the student prepares to enter the second year of the program and take over lead nurse responsibilities. [Transferability: CSU]

V T 75D ANIMAL CARE SKILLS .5 Unit
1.5 hours lecture.
Continuation of VT 75C. Practical application of animal care skills and principles of animal care and management using techniques and knowledge learned in the veterinary technology classroom. Opportunity to participate in the health care team involved in the care, management and husbandry of livestock, companion animals and laboratory animals. Responsibilities include medical record keeping, inventory control, and care of clinical equipment. Emphasis will be on the basic principles and application of clinical facility management, care of resident teaching animals, and routine maintenance duties. Level of responsibility increases as the student prepares to enter the second year of the program and take over lead nurse responsibilities. [Transferability: CSU]

V T 81 CLINICAL PATHOLOGY METHODS 5 Units
4 hours lecture, 3 hours laboratory, 1 hour case study.
Fundamental studies of laboratory techniques and procedures involved in evaluating veterinary clinical samples. Areas of study include hematology, urinalysis, hemostasis, blood biochemistry and enzymology, serology, and cytology. The veterinary technician's role in sample collection, sample storage and handling, and performance of analytic procedures will be emphasized. Skills are developed in the use of laboratory equipment, laboratory safety and management, and quality control. [Transferability: CSU]

V T 83 PHARMACOLOGY FOR TECHNICIANS 4 Units
4 hours lecture, 1 hour case study.
Introduction to the basic principles of veterinary pharmacology. Preparation and dispensing of medications. Overview of the actions and interactions of the major classes of drugs, with emphasis on common veterinary uses of specific drugs. [Transferability: CSU]

V T 84 ANESTHESIOLOGY FOR TECHNICIANS 5 Units
Prerequisite: V T 83.
3 hours lecture, 6 hours laboratory, 1 hour case study.
Principles and practice of veterinary anesthesia. The physiology of the respiratory, cardiovascular, and nervous systems relevant to anesthesia. The pharmacology and uses of common pre-anesthetic and anesthetic agents. The veterinary technician's role in patient preparation, induction and maintenance of anesthesia, surgical assistance, and post-anesthetic nursing will be practiced in the laboratory. [Transferability: CSU]

V T 85 VETERINARY EMERGENCY & CRITICAL CARE 4 Units
3 hours lecture, 3 hours laboratory, 1 hour case study.

V T 86 LABORATORY ANIMAL TECHNOLOGY 4 Units
4 hours lecture, 1 hour case study.
An orientation to the use of animals in research and to the role of the veterinary technician and the biotechnologist in a biomedical research animal facility. Regulations affecting the use of animals in research will be discussed. Proper methods of restraint, daily care, feeding and nutrition, nursing techniques, and housing needs for the common species of laboratory animals (i.e. rodents, rabbits, nonhuman primates, reptiles and amphibians, etc.). Introduction to diagnostic and therapeutic techniques and common diseases of laboratory animals. Appropriate anesthesia, analgesia and euthanasia methods will be discussed. [Transferability: CSU]

V T 86L LABORATORY ANIMAL METHODS 1 Unit
1 hour lecture-laboratory, 2 hours laboratory.
An orientation to basic laboratory animal procedures used in a research animal facility for the veterinary technology student, biotechnology student or those already employed in the biomedical field. Animal identification. Appropriate and humane protocols, methods and procedures commonly encountered in biomedical facilities will be discussed, demonstrated and performed. Animal handling and restraint for commonly encountered laboratory animals (mice, rats, rabbits, guinea pigs). Introduction to basic husbandry principles and breeding procedures used to maintain rodent colonies. Diagnostic sampling techniques and methods of administration of medication. Routine hematology, clinical chemistry, and immunoassay techniques. Students will be required to participate in several mandatory field trips to local biotechnology institutions during regular school hours. [Transferability: CSU]

V T 87A ADVANCED ANIMAL CARE SKILLS 1 Unit
3 hours laboratory.
Practical application of animal care skills and principles of animal care and management, integrating advanced techniques and knowledge gained through classroom instruction. Opportunity to participate in the health care team in a supervisory role with increased organizational responsibility. Emphasis on instruction of first-year students in basic principles of facilities management and maintenance care of resident animals. [Transferability: CSU]
For students in the Veterinary Technology Program who desire or require additional help in attaining comprehension and proficiency in learning skills and/or additional practical training to achieve technical skills competency.

### VIDEO ARTS

#### Fine Arts & Communication

(650) 949-7262

www.foothill.edu/fa/

#### VART 1 INTRODUCTION TO FILM STUDIES

- 4 Units
- Advisory: Not open to students with credit in F TV 1.
- 4 hours lecture, 1 hour laboratory.
- A survey of the language, technology, theory and aesthetics of the moving image as an art form. The course emphasizes an introduction to the critical analysis of the film and video. Includes weekly readings, film viewing, and discussion. [Transferability: UC/CSU]

#### VART 2A HISTORY OF FILM 1895–1945

- 4 Units
- Advisory: Not open to students with credit in F TV 2A.
- 4 hours lecture, 1 hour laboratory.
- Survey of the development of motion pictures from beginning to the 1940s. Emphasis on understanding evolution of international filmmaking. [Foothill GE: Humanities; Transferability: UC/CSU]

#### VART 2B HISTORY OF FILM 1945–CURRENT

- 4 Units
- Advisory: Not open to students with credit in F TV 2B.
- 4 hours lecture, 1 hour laboratory.
- Critical analysis of film as an art form with emphasis on film evolution from the 1940s to the present. [Foothill GE: Humanities; Transferability: UC/CSU]
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
<th>Prerequisites/Advisory</th>
</tr>
</thead>
<tbody>
<tr>
<td>VART 2C</td>
<td>CURRENT TRENDS IN FILM, TV &amp; THE INTERNET</td>
<td>4</td>
<td>Advisory: Not open to students with credit in F TV 2C. 4 hour lecture, 1 hour laboratory. Courses on the technical and aesthetic principles of lighting for film, video, television, and internet media. Critical analysis of use of video in the art of lighting. Topics include color, composition, exposure, light and shadow, three-point lighting, basic electricity, and grip equipment. [Transferability: UC/CSU]</td>
</tr>
<tr>
<td>VART 3</td>
<td>AMERICAN CINEMA</td>
<td>4</td>
<td>Advisory: Not open to students with credit in F TV 3. 4 hours lecture, 1 hour laboratory. Introduction to American Film as a component of art, history, culture and business. How Hollywood has shaped an industry that has come to reflect many aspects of the American experience. Emphasis on the visual experience of communicating ideas, stories, and events. Includes weekly readings, media screenings, and discussion. [Footpath GE: Humanities; Transferability: UC/CSU]</td>
</tr>
<tr>
<td>VART 4</td>
<td>SCRIPTWRITING FOR FILM &amp; VIDEO</td>
<td>4</td>
<td>3 hours lecture, 2 hours lecture-laboratory. An introductory course in scriptwriting for film and video which covers the basic skills needed in scripting for the media. Emphasis will be on the development of visual sensitivity, the examination of sample scripts and experience in progressing from concept to finished script. The role of the script in media production and the appropriate formats for fiction and non-fiction scripts will also be examined. [Transferability: UC/CSU]</td>
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<tr>
<td>VART 8</td>
<td>GLOBAL MEDIA</td>
<td>4</td>
<td>4 hours lecture, 1 hour laboratory. This course examines the economic, political and cultural dynamics that shape the international media environment, its central actors and institutions. [Transferability: UC/CSU]</td>
</tr>
<tr>
<td>VART 15</td>
<td>WEB VIDEO</td>
<td>4</td>
<td>3 hours lecture, 2.5 hours lecture-laboratory. An introduction to new developments in the use of video on the internet. The course covers a variety of internet media concepts such as compression, streaming, podcasting, and RSS feeds. Students study both technical and aesthetic considerations for web video. [Transferability: UC/CSU]</td>
</tr>
<tr>
<td>VART 20</td>
<td>DIGITAL VIDEO PRODUCTION I</td>
<td>4</td>
<td>Advisory: Not open to students with credit in GID 20 or F TV 20; students must register for VART 150X for facility access outside of class times. May be taken 3 times for credit. 3 hours lecture, 2.5 hours lecture-laboratory. Basic instruction in concepts, techniques, and strategies of digital video production. Basic camera, lighting and sound recording will be covered through technical workshops. Emphasis on video story telling and creative problem solving. [Transferability: UC/CSU]</td>
</tr>
<tr>
<td>VART 21</td>
<td>DIGITAL VIDEO PRODUCTION II</td>
<td>4</td>
<td>Prerequisite: VART 20 or GID 20. Advisory: Not open to students with credit in F TV 21; students must register for VART 150X for facility access outside of class time. May be taken 3 times for credit. 3 hours lecture, 2.5 hours lecture-laboratory. Continuation of VART 20. Further exploration of video production with an emphasis on pre-production and scripting methods. [Transferability: UC/CSU]</td>
</tr>
<tr>
<td>VART 25</td>
<td>LIGHTING FOR DIGITAL VIDEO &amp; FILM</td>
<td>4</td>
<td>Advisory: VART 20 or PHOT 5. 3 hours lecture, 2.5 hours lecture-laboratory. An introduction to the technical and aesthetic principles of lighting for digital video and film. Students will explore basic lighting instruments and their characteristics and use in the art of lighting. Topics include color, composition, exposure, light and shadow, three-point lighting, basic electricity, and grip equipment. [Transferability: UC/CSU]</td>
</tr>
<tr>
<td>VART 30</td>
<td>DIGITAL VIDEO EDITING I</td>
<td>4</td>
<td>Formerly: F TV 84, VART 84. Advisory: Not open to students with credit in F TV 84 or VART 84; must demonstrate basic computer proficiency; students who use editing facilities outside of class times must register for VART 150X. May be taken 3 times for credit. 3 hours lecture, 2.5 hours lecture-laboratory. Basic instruction on the use of the computer for video and film editing using AVID Media Composer and/or Final Cut Pro software. The theory and practice of cinematic editing which is explored through projects, screenings, class exercises, and demonstration. Topics include montage, pace and rhythm, openings, cutting dialogue, use of sound. [Transferability: UC/CSU]</td>
</tr>
<tr>
<td>VART 31</td>
<td>DIGITAL VIDEO EDITING II</td>
<td>4</td>
<td>Formerly: F TV 85, VART 85. Prerequisite: VART 30 or 86. Advisory: Not open to students with credit in F TV 85 or VART 85; must demonstrate basic computer proficiency; students who use editing facilities outside of class times must register for VART 150X. May be taken 3 times for credit. 3 hours lecture, 2.5 hours lecture-laboratory. Continuation of VART 30. Further exploration of technical and aesthetic considerations in film and video editing. The course will address advanced topics in digital post-production using AVID Media Composer and/or Final Cut Pro software. Software topics include sync, audio mixing, color correction, and compositing. [Transferability: UC/CSU]</td>
</tr>
<tr>
<td>VART 50</td>
<td>CAREERS IN THE VISUAL ARTS</td>
<td>2</td>
<td>Advisory: Not open to students with credit in GID 60. 2 hours lecture. Exploring the field of visual arts including fine arts, design, graphic design, photography, video arts, new media, and theatre arts. Survey of transfer schools, art studios, company art departments, advertising agencies and job opportunities for creative services professionals. [Transferability: UC/CSU]</td>
</tr>
<tr>
<td>VART 60</td>
<td>CAREERS IN THE VIDEO ARTS</td>
<td>2</td>
<td>2 hours lecture. Exploring the field of visual arts including fine arts, design, graphic design, photography, video arts, new media, and theatre arts. Survey of transfer schools, art studios, company art departments, advertising agencies and job opportunities for creative services professionals. [Transferability: UC/CSU]</td>
</tr>
<tr>
<td>VART 80</td>
<td>SPECIAL PROJECTS IN VIDEO</td>
<td>1</td>
<td>VART 80X 2 units VART 80Y 4 units Advisory: Not open to students with credit in F TV 80. Any combination of VART 80–80Y may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit. 3 hours laboratory for each unit of credit. Individual projects in creative, technical or applied work in video or film by arrangement with the instructor. A limited area is explored at length. [Transferability: UC/CSU]</td>
</tr>
<tr>
<td>VART 81B</td>
<td>SOUND DESIGN FOR FILM &amp; VIDEO</td>
<td>3.5</td>
<td>VART 81B 3.5 units Prerequisite: VART 20 or PHOT 5. Advising: Not open to students with credit in F TV 21; students must register for VART 175X for facility access outside of class time. 3 hours lecture, 1.5 hours lecture-laboratory. Creating and editing soundtracks and audio for digital video, music video and film. Recording live sound, and integrating sound effects from a digital library. Dialogue editing and re-recording(looping), and musical soundtrack creation. Synchronization of audio to video using timecode, aesthetic quality of sound and music as it relates to video content, and the production of video/audio projects using Final Cut Pro/ Avid Media Composer and Pro Tools. [Transferability: CU; UC approval is pending.]</td>
</tr>
</tbody>
</table>
VART 86  INTRODUCTION TO DIGITAL SOUND, 4 Units
VIDEO & ANIMATION
Advisory: Not open to students with credit in ART 88, DRAM 86, F TV 86, GID 80, MUS 86 or THTR 86.
Basic instruction using the computer for emerging media technologies; digital sound, video editing, and animation. Emphasis on time based media and creative problem solving. [Transferability: UC/CSU]

VART 87  MOTION GRAPHICS 4 Units
Advisory: ART 88 or DRAM 86 or GID 80 or MUS 86 or VART 86. Not open to students with credit in GID 84.
2 hours lecture, 2 hours lecture-laboratory, 3 hours laboratory. Basic instruction using the computer for motion graphic design and composite digital video production. Emphasis on time based media and its application to creative problem solving and communication solutions. [Transferability: CSU]

VART 150  VIDEO ARTS LABORATORY .5 Unit
VART 150X  1 Unit
VART 150Y  1.5 Units
VART 150Z  2 Units
Non-degree applicable non-credit course.
Any combination of VART 150–150Z may be taken 6 times for credit, however, no single course may be taken more than 6 times for credit. 1.5 hours laboratory for each .5 unit of credit. Supervised activities in Video Arts, related to skills and materials of film and video production and study in Video Arts courses in which students are currently enrolled.

VITICULTURE
Biological & Health Sciences (650) 949-7249

VITI 51  APPLIED PLANT SCIENCE 4 Units
3 hours lecture, 3 hours laboratory. Applied plant sciences including grape plant anatomy, physiology, and environmental responses such as frost free days, degree-day calculations for sugar build up, water utilization, plant nutrition, and leaf area indexing related to canopy management. Environmental factors such as climate and soil conditions effecting varietals and rootstocks best adapted to an area. European varitals are emphasized and American varietals are covered. Introduction to the major wine grape diseases and pests common to this region. [Transferability: CSU]

VITI 52  FALL PRACTICES 4 Units
3 hours lecture, 3 hours laboratory. Fall practices for wine grape production in the Santa Clara County region, including grape maturity monitoring, harvesting, post harvest vineyard management, and plant winterization, shoot management, late season irrigation and fertilization strategies. [Transferability: CSU; UC approval is pending.]

VITI 53  WINTER PRACTICES 4 Units
Advisory: Strongly advise completion of VITI 51 and 52.
3 hours lecture, 3 hours laboratory. Winter practices typical of Santa Clara County including pruning, of established plants, cold protection, and dormant season disease and pest control. Establishing a vineyard including a review of varietals selection, planting, training, budding/grafting, pruning of young plants, and trellising options. [Transferability: CSU; UC approval is pending.]

VITI 55  SPRING PRACTICES 4 Units
3 hours lecture, 3 hours laboratory. Viticulture practices for springtime including continued steps for vineyard establishment. Mature plant canopy management, cane training, disease & pest control, soils and fertilizers, late season frost protection, irrigation practices, quality control measures and vineyard equipment use. Alternative or organic vineyard management strategies will be discussed. [Transferability: CSU; UC approval is pending.]

VITI 56A  INTRODUCTION TO WINEMAKING 4 Units
Advisory: Must be at least 21 years of age to participate in wine tasting; proof of identity required.
3 hours lecture, 3 hour laboratory.
Fall activities in basics of winemaking from grape harvest through wine bottling. Field sugar/acid level measurement, when to harvest, what to harvest or not, and picking, and grape handling from field to winery. Steps in wine making including: primary fermentation, stemmer/crusher, fermentation tanks, sanitation requirements, sulfide treatment, yeast inoculation, temperature level, punching, sugar level monitoring, and pressing. [Transferability: CSU; UC approval is pending.]

VITI 56B  INTERMEDIATE WINEMAKING 4 Units
Prerequisite: VITI 56A.
Advisory: CHEM 31A, 31B or equivalent; must be at least 21 years of age to participate in wine tasting; proof of identity required.
3 hours lecture, 3 hour laboratory.
Winter wine production procedures. Extension of 56A topics with an emphasis on wine chemistry and the analytical process. Secondary fermentation aspects including alcohol to acid balance, malolactic acid conversion, sanitation requirements, racking, barrel aging, topping, juice monitoring, and adjusting balance based on lab analysis. Trouble sugar to acid imbalances including stuck fermentation, dealing with contaminations, inducing malolactic acid conversion, filtration/fining, and blending during the aging process. [Transferability: CSU; UC approval is pending.]

VITI 56C  ADVANCED WINEMAKING 4 Units
Prerequisite: VITI 56B.
Advisory: BIOL 41 or equivalent; must be at least 21 years of age to participate in wine tasting; proof of identity required.
3 hours lecture, 3 hour laboratory.
Spring wine production procedures. Extension of 56B topics including racking, barrel tasting, blending, and influence of cooperage. Emphasis will be placed on the microbiology, cooperage selection and alternative approaches and techniques used in winemaking. Identification, physiology, and biochemistry of bacteria, fungi, and yeast involved in winemaking and spoilage of wines. Examination of sensory based descriptions commonly found in wine tasting. Lab analysis data analysis will be utilized but students will experiment with a variety of responses to reach desired outcomes prior to bottling. [Transferability: CSU; UC approval is pending.]

VITI 63  CONTEMPORARY ISSUES IN WINE MAKING 4 Units
Prerequisite: VITI 61C or equivalent field experience.
Advisory: Must be at least 21 years of age to participate in wine tasting; proof of identity required.
4 hours lecture.
Review of the latest trends and methods for California wine production. Examination of alternative approaches to similar circumstances employed by various winemakers will be explored. Topics include degree Brix vs. grape maturity for desired wine type. Feeding the Juice, malolactic induction and the time of crush, delayed fermentation, color extraction, advanced clarification/filtration, blending and fresh juice introduction. Variation of methods for specialty wine production. Students will be responsible for researching a contemporary issue in enology and present their research findings before the class and invited guests. [Transferability: CSU]

VITI 65  WINE & CULTURE 4 Units
4 hours lecture.
The historic interrelationship of wine and various cultures of the world. Wine production regions of the world are reviewed and the wines of note are covered. History of California wine regions and emerging trends. [Transferability: UC/CSU]

VITI 67  RETAIL WINERY MANAGEMENT 4 Units
4 hours lecture.
Establishing a small commercial winery. Topics covered include legal regulations, marketing and sale, tasting room management, health and safety issues, and marketing and sales. Retail sales in the wine a food culture. [Transferability: CSU]
VITI 90A  WINE APPRECIATION  1 Unit
Advisory: Must be at least 21 years of age to participate in wine tasting; proof of identity required. May be taken 5 times for credit.
1 hour lecture.
Trace the lineage of wines as they developed around the world, how certain cultures are defined by particular grape varietals or wine types. The development of each region and the wine types associated will be culminated at the end of each session with a sampling of wines. Reading wine labels will be demystified, reducing the confusion and minimizing risk when selecting a bottle of wine. Grape growing and wine making techniques throughout history and around the world are examined. Guest speakers, including sommelier, chef, vendor, and critic guide the wine tastings as they impart their specialized skills. [Transferability: CSU]

VITI 90B  VINEYARD ESTABLISHMENT  2 Units
May be taken 5 times for credit.
2 hours lecture.
Buying grapevines at a nursery and planting them is but one step in the integrated process of establishing a vineyard. Regional differences, vine growing theories, and historical development are presented, along with variety selection and a discussion of how grapevines grow. The establishment process begins with site evaluation, soil preparation and physical layout. Trellis systems, drip irrigation, cover crops, and deer fences are illustrated. Various types of controls for potential pests and diseases are revealed. And, of course, the vines themselves are described from planting, through training, and into harvest. [Transferability: CSU]

VITI 90C  VINEYARD MANAGEMENT  2 Units
May be taken 5 times for credit.
2 hours lecture.
Fertilization needs, irrigation practices, frost protection systems, ground cover requirements, and grape harvest are detailed. Pests, diseases, and other disorders are illustrated to facilitate troubleshooting problematic vineyards. Integrated pest management, organic, and biodynamic practices are forms of control presented. Cultural operations designed to reduce potential problems and the use of pesticides are discussed. License and certificate holders may receive continuing education hours from the California Department of Agriculture. [Transferability: CSU]

VITI 90D  VINE PRUNING  1 Unit
May be taken 5 times for credit.
1 hour lecture.
The annual growth cycle and growth habits of grapevines are detailed and applied to vineyard practices specific to the vines themselves. Follow the 3 year process from planting and through the training process until the vines are mature. Students will travel to a local vineyard to prune actual grapevines under supervision. Bring a pair of pruning shears. Work clothes and boots are recommended. [Transferability: CSU]

VITI 90E  BASIC WINEMAKING  2 Units
Advisory: Must be at least 21 years of age to participate in wine tasting; proof of identity required; a fee may be assessed. May be taken 5 times for credit.
2 hours lecture.
The ancient art of winemaking is revealed beginning with grape harvest and through the factors that influence wine quality and potential. The steps of red and white winemaking are presented on both small and large scales, with emphasis on types of equipment and sanitation requirements. Crushing, fermentation, cap management, and pressing take students through the initial processing phase. Methods of wine aging and storage considerations are discussed. Manipulations such as chemical adjustments, stabilization, blending, filtration, fining, and lab tests expose the winemaker’s secrets. Bottling, whether by hand or mechanized, is the final step in this one-day experience from grapes to the vine to finished wine in the glass. [Transferability: CSU]
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALAP 105</td>
<td>Adaptive Fitness Directed Study</td>
</tr>
<tr>
<td>ALAP 65,X</td>
<td>Stretching &amp; Flexibility for the Physically Limited</td>
</tr>
<tr>
<td>ALCA 202</td>
<td>Computer Keyboarding Skills for the Disabled</td>
</tr>
<tr>
<td>ALCA 203,X,Y</td>
<td>Computer Access Projects for the Disabled</td>
</tr>
<tr>
<td>ALCB 401,X,Y</td>
<td>Life Development: Goal Setting</td>
</tr>
<tr>
<td>ALCB 402,X,Y</td>
<td>Leisure Management</td>
</tr>
<tr>
<td>ALCB 404,X,Y</td>
<td>Consumer Topics</td>
</tr>
<tr>
<td>ALCB 405,X,Y</td>
<td>Independent Living Skills</td>
</tr>
<tr>
<td>ALCB 415</td>
<td>Healthy Aging</td>
</tr>
<tr>
<td>ALCB 432,X,Y</td>
<td>Use of Community Resources</td>
</tr>
<tr>
<td>ALCB 433,X–Z</td>
<td>Social Communication</td>
</tr>
<tr>
<td>ALCB 435,X–Z</td>
<td>Clay Art</td>
</tr>
<tr>
<td>ALCB 434,X,Y</td>
<td>Music &amp; Song</td>
</tr>
<tr>
<td>ALLD 201,X</td>
<td>Diagnosing Learning Disabilities</td>
</tr>
<tr>
<td>ALLD 202,X</td>
<td>Special Projects for Learning Disabled</td>
</tr>
<tr>
<td>ALLD 203</td>
<td>Compensatory Techniques</td>
</tr>
<tr>
<td>ALLD 204,X</td>
<td>Technology-Based Writing for Students With Learning Differences</td>
</tr>
<tr>
<td>ALLD 205,X</td>
<td>Reading Remediation</td>
</tr>
<tr>
<td>ALLD 208,X</td>
<td>Mainstreaming for Success</td>
</tr>
<tr>
<td>ALLD 209,X</td>
<td>Skill Building for the Disabled</td>
</tr>
<tr>
<td>ALLD 212</td>
<td>Strategic Learning for College Success</td>
</tr>
<tr>
<td>ALPS 200,X</td>
<td>Orientation for the Disabled</td>
</tr>
<tr>
<td>ALPS 201,X</td>
<td>Assessment for the Acquired Brain Injured Student</td>
</tr>
<tr>
<td>ALPS 202</td>
<td>Language Assessment for the Disabled</td>
</tr>
<tr>
<td>ALPS 203</td>
<td>Living Skills Assessment for the Disabled</td>
</tr>
<tr>
<td>ALPS 204</td>
<td>Mobility &amp; Fitness Assessment for the Disabled</td>
</tr>
<tr>
<td>ALPS 205,X,Y</td>
<td>Communication Skills for the Disabled</td>
</tr>
<tr>
<td>ALPS 206,X,Y</td>
<td>Adaption Skills for the Disabled</td>
</tr>
<tr>
<td>ALPS 207,X,Y</td>
<td>Mobility &amp; Fitness Skills for the Disabled</td>
</tr>
<tr>
<td>ALPS 208,X,Y</td>
<td>Coping With Disability</td>
</tr>
<tr>
<td>ALPS 209,X,Y</td>
<td>Functional Communication Skills for the Disabled</td>
</tr>
<tr>
<td>ALPS 210,X,Y</td>
<td>Functional Skills of Daily Living for the Disabled</td>
</tr>
<tr>
<td>ALPS 211,X,Y</td>
<td>Functional Strength, Balance &amp; Conditioning Training for the Disabled</td>
</tr>
<tr>
<td>ALPS 212,X,Y</td>
<td>Emergency Household Procedures for the Disabled</td>
</tr>
<tr>
<td>ALPS 213,X,Y</td>
<td>Cognitive Retraining for the Disabled</td>
</tr>
<tr>
<td>ALPS 214,X,Y</td>
<td>Management of Physical Aspects of Disabilities</td>
</tr>
<tr>
<td>ALPS 215,X,Y</td>
<td>Mobility in Sitting &amp; Standing for the Disabled</td>
</tr>
<tr>
<td>ALPS 216,X,Y</td>
<td>Independent Access Skills for Post-Stroke</td>
</tr>
<tr>
<td>ALPS 217,X,Y</td>
<td>Special Projects in the Post-Stroke Program</td>
</tr>
<tr>
<td>ALPS 218</td>
<td>Transition Class for Post-Stroke Program</td>
</tr>
<tr>
<td>ALPS 219,X</td>
<td>Post Traumatic Disability Training</td>
</tr>
<tr>
<td>ALPS 220,X,Y</td>
<td>Caregiving: Learning Positive Coping Skills</td>
</tr>
<tr>
<td>ALPS 221,X</td>
<td>Facial Exercises for the Acquired Brain Injury Student</td>
</tr>
<tr>
<td>ALPS 222,X</td>
<td>Speech/Language Skills for the Nonfluent ABI Student</td>
</tr>
<tr>
<td>ALPS 223,X,Y</td>
<td>Cognitive Reorganization Skills for ABI Students</td>
</tr>
<tr>
<td>ALPS 224,X</td>
<td>Upper Extremity Exercises for the Acquired Brain Injury Student</td>
</tr>
<tr>
<td>ALPS 225,X</td>
<td>Functional Skills of Daily Living for the Acquired Brain Injury Student</td>
</tr>
<tr>
<td>ALPS 226,X</td>
<td>Basic Ambulation Skills for the ABI Student</td>
</tr>
<tr>
<td>ALPS 227,X</td>
<td>Functional Mobility Skills</td>
</tr>
<tr>
<td>ALTS 227</td>
<td>Skills Laboratory for the Disabled</td>
</tr>
<tr>
<td>ALTS 228</td>
<td>Special Projects for the Disabled</td>
</tr>
<tr>
<td>APPR 191,X–Z</td>
<td>Introduction to Sheet Metal Fabrication</td>
</tr>
<tr>
<td>APPR 192,X–Z</td>
<td>Advanced Sheet Metal Fabrication</td>
</tr>
<tr>
<td>APPR 193,X–Z</td>
<td>Sheet Metal Layout &amp; Pattern Development</td>
</tr>
<tr>
<td>APPR 194,X–Z</td>
<td>Sheet Metal Heating &amp; Air Conditioning</td>
</tr>
<tr>
<td>APPR 195,X–Z</td>
<td>Advanced Sheet Metal Pattern Development; Tools &amp; Equipment</td>
</tr>
<tr>
<td>APPR 196,X–Z</td>
<td>Sheet Metal Materials, Welding &amp; Rigging</td>
</tr>
<tr>
<td>APPR 197,X–Z</td>
<td>Blueprint Reading &amp; Pattern Drafting</td>
</tr>
<tr>
<td>APPR 198,X–Z</td>
<td>Advanced Sheet Metal Drafting &amp; Sketching</td>
</tr>
<tr>
<td>APPR 199A</td>
<td>Introduction to Sheet Metal Welding</td>
</tr>
<tr>
<td>APPR 199B</td>
<td>Advanced Sheet Metal Welding</td>
</tr>
<tr>
<td>APRT 111X–Z</td>
<td>Computer Literacy for Trade Apprentices</td>
</tr>
<tr>
<td>APRT 112</td>
<td>Residential Electrical Air Conditioning &amp; Refrigeration; Telephone Systems</td>
</tr>
<tr>
<td>APRT 120</td>
<td>Orientation to the Electrical Trade</td>
</tr>
<tr>
<td>APRT 121</td>
<td>Electron Theory; Basic Blueprint Reading; DC Theory; Non National Electrical Code Introduction</td>
</tr>
<tr>
<td>APRT 122</td>
<td>Codeology; Test Equipment; Pipe Bending; Blueprints</td>
</tr>
<tr>
<td>APRT 123</td>
<td>AC Theory; Transformers; Intermediate National Electrical Code</td>
</tr>
<tr>
<td>APRT 124</td>
<td>DC/AC Theory Review; Electronics; Industrial Blueprints</td>
</tr>
<tr>
<td>APRT 125</td>
<td>NEC Grounding; Overcurrent Protection; Transformer Connections</td>
</tr>
<tr>
<td>APRT 126</td>
<td>Motors; Motor Control; Lighting Protection</td>
</tr>
<tr>
<td>APRT 127</td>
<td>Digital Electronics; Motor Speed Control; Advanced National Electrical Code</td>
</tr>
<tr>
<td>APRT 128</td>
<td>Programmable Logic Controllers; Low Voltage Systems &amp; High Voltage Systems</td>
</tr>
<tr>
<td>APRT 129</td>
<td>National Electrical Code Review</td>
</tr>
<tr>
<td>APRT 135</td>
<td>Residential Electrical Orientation; Safety, &amp; Code Introduction</td>
</tr>
<tr>
<td>APRT 136</td>
<td>Residential Electrical D/C Theory; Blueprint Reading</td>
</tr>
<tr>
<td>APRT 137</td>
<td>Residential Electrical A/C Theory &amp; Circuitry</td>
</tr>
<tr>
<td>APRT 138</td>
<td>Residential Wiring Layout &amp; Installation</td>
</tr>
<tr>
<td>APRT 197</td>
<td>Residential Piping Lay-Out &amp; Installation; Residential Fixtures</td>
</tr>
<tr>
<td>ARBT 1–3</td>
<td>Elementary Arabic</td>
</tr>
<tr>
<td>ART 4L</td>
<td>Drawing Laboratory</td>
</tr>
<tr>
<td>ART 43</td>
<td>Mold Construction for Ceramic Art</td>
</tr>
<tr>
<td>ART 43L</td>
<td>Ceramics Laboratory</td>
</tr>
<tr>
<td>ART 45D</td>
<td>Advanced Ceramics Decorating Techniques</td>
</tr>
<tr>
<td>ART 45DL</td>
<td>Ceramics Laboratory</td>
</tr>
<tr>
<td>ART 66</td>
<td>The Art of Spain</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
</tr>
<tr>
<td>-------------</td>
<td>--------------</td>
</tr>
<tr>
<td>ART 70</td>
<td>Kiln Design, Construction &amp; Operation</td>
</tr>
<tr>
<td>ASTR 105</td>
<td>Seminar in Hands-On Astronomy</td>
</tr>
<tr>
<td>ASTR 190,X–Z</td>
<td>Directed Study</td>
</tr>
<tr>
<td>B T 93U–W</td>
<td>B T Experiential Internship</td>
</tr>
<tr>
<td>BIOL 1DL</td>
<td>Molecular Biology Laboratory</td>
</tr>
<tr>
<td>BIOL 16</td>
<td>Ornithology</td>
</tr>
<tr>
<td>BIOL 35,H,HX</td>
<td>Honors Department Projects in Biology</td>
</tr>
<tr>
<td>BIOL 46</td>
<td>Fundamentals of Pharmacology</td>
</tr>
<tr>
<td>BIOL 54</td>
<td>Protein Electrophoretic Systems: Basic Laboratory Technique</td>
</tr>
<tr>
<td>BIOL 55</td>
<td>Nucleic Acids Electrophoretic Systems: Basic Laboratory Technique</td>
</tr>
<tr>
<td>BIOL 66</td>
<td>HPLC: Basic Laboratory Technique</td>
</tr>
<tr>
<td>BIOL 67</td>
<td>Immunological Assays</td>
</tr>
<tr>
<td>BIOL 69</td>
<td>Basic Mammalian Cell Culture Techniques</td>
</tr>
<tr>
<td>BIOL 72</td>
<td>HPLC: Basic Laboratory Technique II</td>
</tr>
<tr>
<td>BIOL 73</td>
<td>Histotechnology in Research</td>
</tr>
<tr>
<td>BIOL 74</td>
<td>Overview of Regulatory Affairs</td>
</tr>
<tr>
<td>BIOL 77</td>
<td>Overview of Regulatory Affairs</td>
</tr>
<tr>
<td>BIOL 78</td>
<td>Polymerase Chain Reaction: Basic Laboratory Technique</td>
</tr>
<tr>
<td>BIOL 80</td>
<td>Monoclonal Antibody Production: Hybridoma Technology</td>
</tr>
<tr>
<td>BIOL 85</td>
<td>Immunobiotechnology Basic Laboratory Theory</td>
</tr>
<tr>
<td>BIOL 86</td>
<td>Introduction to Microarray Data Analysis</td>
</tr>
<tr>
<td>BIOL 190,Y,Z</td>
<td>Directed Study</td>
</tr>
<tr>
<td>BTEC 50</td>
<td>Careers in Biotechnology/ Bioinformatics</td>
</tr>
<tr>
<td>BTEC 55</td>
<td>Laboratory Safety</td>
</tr>
<tr>
<td>BTEC 56X–Z</td>
<td>Directed Study</td>
</tr>
<tr>
<td>BTEC 57A</td>
<td>Virology for Biotechnology</td>
</tr>
<tr>
<td>BTEC 58</td>
<td>Principles of Biotechnology/ Biomaterials</td>
</tr>
<tr>
<td>BTEC 59</td>
<td>Business &amp; Regulatory Practices in Biotechnology/ Biomaterials</td>
</tr>
<tr>
<td>BTEC 61</td>
<td>Cell Culture &amp; Protein Recovery/Biomaterials</td>
</tr>
<tr>
<td>BTEC 62</td>
<td>Biotechnology Instrumentation: Quality Control Engineering</td>
</tr>
<tr>
<td>BTEC 63</td>
<td>Monoclonal Antibody Production: Hybridoma Technology</td>
</tr>
<tr>
<td>BTEC 70</td>
<td>HPLC: Basic Laboratory Technique II</td>
</tr>
<tr>
<td>BTEC 71</td>
<td>Overview of Regulatory Affairs</td>
</tr>
<tr>
<td>BTEC 76</td>
<td>Introduction to Microarray Data Analysis</td>
</tr>
<tr>
<td>BUSI 102</td>
<td>Practical Personal Finance</td>
</tr>
<tr>
<td>CAST 50</td>
<td>Career Exploration Using the Internet</td>
</tr>
<tr>
<td>CAST 52P</td>
<td>Intermediate Flash: Projects</td>
</tr>
<tr>
<td>CAST 54A</td>
<td>Microsoft Visio</td>
</tr>
<tr>
<td>CAST 55A</td>
<td>Introduction to Adobe GoLive</td>
</tr>
<tr>
<td>CAST 56B</td>
<td>Intermediate Filemaker Pro</td>
</tr>
<tr>
<td>CAST 58</td>
<td>Using XML Spy</td>
</tr>
<tr>
<td>CAST 70J</td>
<td>Introduction to Adobe Premiere Elements</td>
</tr>
<tr>
<td>CAST 89A</td>
<td>Introduction to Quarkxpress</td>
</tr>
<tr>
<td>CAST 89B</td>
<td>Advanced Quarkxpress</td>
</tr>
<tr>
<td>CAST 91A</td>
<td>Introduction to Painter</td>
</tr>
<tr>
<td>CAST 91B</td>
<td>Advanced Painter</td>
</tr>
<tr>
<td>CHEM 10</td>
<td>Introductory Chemistry</td>
</tr>
<tr>
<td>CHEM 190</td>
<td>Directed Study</td>
</tr>
<tr>
<td>CHEM 190X</td>
<td>Directed Study</td>
</tr>
<tr>
<td>CHEM 190Y</td>
<td>Directed Study</td>
</tr>
<tr>
<td>CHEM 190Z</td>
<td>Directed Study</td>
</tr>
<tr>
<td>CHIN 110</td>
<td>Chinese Language &amp; Culture</td>
</tr>
<tr>
<td>CHIN 112</td>
<td>Chinese Language &amp; Culture</td>
</tr>
<tr>
<td>CHIN 120</td>
<td>Introduction to Reading &amp; Writing Chinese</td>
</tr>
<tr>
<td>CHIN 190</td>
<td>Directed Study Lecture</td>
</tr>
<tr>
<td>CHIN 190X</td>
<td>Directed Study Lecture</td>
</tr>
<tr>
<td>CHIN 190Y</td>
<td>Directed Study Lecture</td>
</tr>
<tr>
<td>CHIN 190Z</td>
<td>Directed Study Lecture</td>
</tr>
<tr>
<td>CHIN 34H</td>
<td>Honors Institute Seminar in Chinese</td>
</tr>
<tr>
<td>CIS 19D</td>
<td>Developing Windows-Based Applications With C#</td>
</tr>
<tr>
<td>CIS 19M</td>
<td>Windows Presentation Foundation Introduction</td>
</tr>
<tr>
<td>CIS 19N</td>
<td>Deploying .Net Applications</td>
</tr>
<tr>
<td>CIS 19V</td>
<td>Using Visual Studio Tools for Office</td>
</tr>
<tr>
<td>CIS 52L</td>
<td>Oracle New Features for Database Administrators</td>
</tr>
<tr>
<td>CIS 62B</td>
<td>Modeling &amp; Simulation</td>
</tr>
<tr>
<td>CIS 68J</td>
<td>Perl Programming for Bioinformatics</td>
</tr>
<tr>
<td>CIS 93U–W</td>
<td>CIS Experiential Internship</td>
</tr>
<tr>
<td>CNET 51A</td>
<td>Microsoft Windows 2000 Professional</td>
</tr>
<tr>
<td>CNET 51H</td>
<td>Microsoft Windows 2000 Xp Professional</td>
</tr>
<tr>
<td>CNET 60E</td>
<td>Microsoft Windows 2003 Network Design</td>
</tr>
<tr>
<td>CNET 93V,W</td>
<td>CNET Experiential Internship</td>
</tr>
<tr>
<td>CNSL 100</td>
<td>Introduction to College for Health Science Student</td>
</tr>
<tr>
<td>CNSL 101</td>
<td>College Basics</td>
</tr>
<tr>
<td>CNSL 200L</td>
<td>Introduction to College Laboratory</td>
</tr>
<tr>
<td>CNSL 54</td>
<td>First-Year Experience: Leadership And Peer Support</td>
</tr>
<tr>
<td>CNSL 60A</td>
<td>College Success: Wellness</td>
</tr>
<tr>
<td>CNSL 60B</td>
<td>College Success: Competition</td>
</tr>
<tr>
<td>CNSL 60C</td>
<td>College Success: Time Management</td>
</tr>
<tr>
<td>CNSL 80</td>
<td>Women's Issues</td>
</tr>
<tr>
<td>CNSL 85G</td>
<td>Assertive Communication</td>
</tr>
<tr>
<td>CNSL 85GA</td>
<td>Advanced Assertive Communication</td>
</tr>
<tr>
<td>CNSL 85P</td>
<td>Transfer Readiness for Academically Assisted Students</td>
</tr>
<tr>
<td>COIN 109</td>
<td>Selected Business Topics for the Web Administrator</td>
</tr>
<tr>
<td>COIN 181</td>
<td>Web Site Design for ATYP</td>
</tr>
<tr>
<td>COIN 209</td>
<td>Navigating the Internet</td>
</tr>
<tr>
<td>COIN 210L</td>
<td>World Wide Web Page Design</td>
</tr>
<tr>
<td>COIN 211A</td>
<td>Using Digital Images</td>
</tr>
<tr>
<td>COIN 212</td>
<td>Blogging, Syndication &amp; Podcasting</td>
</tr>
<tr>
<td>COIN 53</td>
<td>Learning With Etudes</td>
</tr>
<tr>
<td>COIN 53A</td>
<td>Introduction to Etudes</td>
</tr>
<tr>
<td>COIN 68</td>
<td>CGI Scripting Using Perl</td>
</tr>
<tr>
<td>COIN 74</td>
<td>Web Publishing Tools: Dreamweaver</td>
</tr>
<tr>
<td>COIN 74B</td>
<td>Web Publishing Tools: Dreamweaver Interactive</td>
</tr>
<tr>
<td>COIN 74C</td>
<td>Web Publishing Tools: Dreamweaver Interactive II</td>
</tr>
<tr>
<td>COIN 76</td>
<td>Web Publishing Tools: Multimedia</td>
</tr>
<tr>
<td>COIN 79</td>
<td>XML for Bioinformatics</td>
</tr>
<tr>
<td>COIN 84</td>
<td>Special Web Projects</td>
</tr>
<tr>
<td>COIN 86</td>
<td>Server-Side Programming With Javaserver Pages (Jsp)</td>
</tr>
<tr>
<td>COIN 88</td>
<td>Using UML for Web Application Development</td>
</tr>
<tr>
<td>COIN 91</td>
<td>Introduction to Database-Driven Web Sites</td>
</tr>
<tr>
<td>COIN 92</td>
<td>Database-Driven Web Sites: Step By Step</td>
</tr>
<tr>
<td>COIN 93U–W</td>
<td>COIN Experiential Internship</td>
</tr>
<tr>
<td>COIN 94</td>
<td>Constructing Data-Driven Web Sites With PHP &amp; MySQL</td>
</tr>
<tr>
<td>COIN 96</td>
<td>Constructing Data Driven Web Sites With ASP.NET</td>
</tr>
<tr>
<td>COMM 6</td>
<td>Political Rhetoric</td>
</tr>
<tr>
<td>CRLP 220A</td>
<td>Preparation for Radiologic Technology</td>
</tr>
<tr>
<td>CRLP 220B</td>
<td>Preparation for Dental Hygiene</td>
</tr>
<tr>
<td>CRLP 220C</td>
<td>Preparing for Respiratory Therapy</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
</tr>
<tr>
<td>-------------</td>
<td>--------------</td>
</tr>
<tr>
<td>CRLP 220D</td>
<td>Preparation for Radiation Therapy Program</td>
</tr>
<tr>
<td>CRLP 72</td>
<td>Interviewing for Career Information in the Community</td>
</tr>
<tr>
<td>CRLP 78</td>
<td>Job Search Strategies</td>
</tr>
<tr>
<td>CRLP 81</td>
<td>Preparation for Social Science Careers</td>
</tr>
<tr>
<td>CRLP 82</td>
<td>Preparation for Careers in the Humanities</td>
</tr>
<tr>
<td>CRLP 83</td>
<td>Preparation for Careers in the Arts</td>
</tr>
<tr>
<td>CRLP 84</td>
<td>Preparation for Careers in the Sciences</td>
</tr>
<tr>
<td>CRLP 85</td>
<td>Preparation for Engineering &amp; Technology Careers</td>
</tr>
<tr>
<td>CRLP 86</td>
<td>Preparation for Business Careers</td>
</tr>
<tr>
<td>CRLP 90</td>
<td>High-Tech Career Exploration On the Internet</td>
</tr>
<tr>
<td>CRWR 120A,B</td>
<td>Creative Writers’ Conference</td>
</tr>
<tr>
<td>CRWR 36B</td>
<td>Playwriting</td>
</tr>
<tr>
<td>CWE 53,X–Z</td>
<td>Occupational Work Experience</td>
</tr>
<tr>
<td>CWE 56</td>
<td>Occupational Work Experience: Community Service</td>
</tr>
<tr>
<td>CWE 70,X,Y</td>
<td>General Work Experience</td>
</tr>
<tr>
<td>D A 190,X–Z</td>
<td>Directed Study</td>
</tr>
<tr>
<td>D A 61</td>
<td>Ultrasonic Scaling for the RDA</td>
</tr>
<tr>
<td>D H 68B</td>
<td>Radiographic Interpretation B</td>
</tr>
<tr>
<td>D H 85</td>
<td>Special Topics in Dental Hygiene</td>
</tr>
<tr>
<td>EDUC 100</td>
<td>You Can Teach Online</td>
</tr>
<tr>
<td>EDUC 101</td>
<td>Cyber Teachers Institute</td>
</tr>
<tr>
<td>EDUC 102</td>
<td>Advanced Cyber Teachers Institute</td>
</tr>
<tr>
<td>EDUC 103</td>
<td>Current Issues in Online Learning</td>
</tr>
<tr>
<td>ENGL 51A,B</td>
<td>Student Success in the English Classroom</td>
</tr>
<tr>
<td>ENGL 97A–H</td>
<td>Shakespeare Field Trip</td>
</tr>
<tr>
<td>ENGR 6</td>
<td>Engineering Graphics</td>
</tr>
<tr>
<td>ENGR 27</td>
<td>Engineering Descriptive Geometry</td>
</tr>
<tr>
<td>ENGR 38</td>
<td>Semiconductor Devices &amp; Circuits</td>
</tr>
<tr>
<td>ENGR 76</td>
<td>Introduction to Nanotechnology</td>
</tr>
<tr>
<td>ENGR 101</td>
<td>Basic Skills in the Workplace</td>
</tr>
<tr>
<td>F A 34H</td>
<td>Honors Institute Seminar in Fine Arts</td>
</tr>
<tr>
<td>F A 92</td>
<td>Community Service Learning Across the Curriculum for Fine Arts</td>
</tr>
<tr>
<td>GERM 4–6</td>
<td>Intermediate German</td>
</tr>
<tr>
<td>GERM 13A,B</td>
<td>Intermediate Conversation</td>
</tr>
<tr>
<td>GERM 14A,B</td>
<td>Advanced Conversation</td>
</tr>
<tr>
<td>GERM 25A,B</td>
<td>Advanced Composition &amp; Reading</td>
</tr>
<tr>
<td>GERM 34H</td>
<td>Honors Institute Seminar in German</td>
</tr>
<tr>
<td>HIST 19</td>
<td>History of Asia: China/Japan</td>
</tr>
<tr>
<td>HIST 23A</td>
<td>Introduction to African History to 1800</td>
</tr>
<tr>
<td>HIST 24</td>
<td>20th Century American Foreign Policy</td>
</tr>
<tr>
<td>HIST 30</td>
<td>War &amp; Peace in the 20th &amp; 21st Century</td>
</tr>
<tr>
<td>HIST 35,X–Z</td>
<td>Department Honors Projects in History</td>
</tr>
<tr>
<td>HLTH 5</td>
<td>Emergency Response</td>
</tr>
<tr>
<td>HORT 52D</td>
<td>Horticultural Practices: Biotechnology &amp; Micropropagation</td>
</tr>
<tr>
<td>HORT 90B</td>
<td>Environmental Horticulture Careers</td>
</tr>
<tr>
<td>HORT 90D</td>
<td>Herbs: Identification, Use &amp; Folklore</td>
</tr>
<tr>
<td>HORT 90J</td>
<td>Landscape Tools &amp; Equipment</td>
</tr>
<tr>
<td>HORT 90T</td>
<td>Gardens of the Renaissance</td>
</tr>
<tr>
<td>HORT 90W</td>
<td>Water Features in European Gardens</td>
</tr>
<tr>
<td>JAPN 34H</td>
<td>Honors Institute Seminar in Japanese</td>
</tr>
<tr>
<td>JAPN 190,X–Z</td>
<td>Directed Study</td>
</tr>
<tr>
<td>JRYM 119,120</td>
<td>Uniform Plumbing Code for Journeypersons</td>
</tr>
<tr>
<td>JRYM 125,X–Z</td>
<td>Computer Literacy for Trade Journeypersons</td>
</tr>
<tr>
<td>JRYM 138A</td>
<td>Electrician Journeymen Upgrade I</td>
</tr>
<tr>
<td>JRYM 147A,B</td>
<td>Basic Air Conditioning Service for Journeymen II</td>
</tr>
<tr>
<td>JRYM 148A,B</td>
<td>Beginning Welding for Sheet Metal Journeymen II</td>
</tr>
<tr>
<td>JRYM 149A,B</td>
<td>Advanced Welding for Sheet Metal Journeymen I</td>
</tr>
<tr>
<td>JRYM 150,151</td>
<td>Drawing &amp; Sheet Metal Detailing</td>
</tr>
<tr>
<td>JRYM 155B</td>
<td>Basic Electricity for Sheet Metal A/C Service Journeypersons II</td>
</tr>
<tr>
<td>JRYM 156</td>
<td>Welding Certification Preparation for Sheet Metal Journeymen</td>
</tr>
<tr>
<td>JRYM 159A–D</td>
<td>Quickpen 3-D Computer-Aided Design for Sheet Metal Journeymen</td>
</tr>
<tr>
<td>JRYM 160</td>
<td>Advanced Welding Laboratory</td>
</tr>
<tr>
<td>JRYM 167</td>
<td>Review of the Uniform Mechanical Code</td>
</tr>
<tr>
<td>JRYM 169B</td>
<td>Field Measurement &amp; Layout for Sheet Metal Journeymen II</td>
</tr>
<tr>
<td>JRYM 171A–D</td>
<td>Intelicad Electronic Coordination for Sheet Metal Journeypersons</td>
</tr>
<tr>
<td>JRYM 190A,B</td>
<td>Introduction to Air Conditioning Specialists</td>
</tr>
<tr>
<td>JRYM 191A,B</td>
<td>Advanced Air Conditioning Specialists</td>
</tr>
<tr>
<td>LIBR 1</td>
<td>Principles of Library Research</td>
</tr>
<tr>
<td>LIBR 36,X–Z</td>
<td>Special Projects in Library Science</td>
</tr>
<tr>
<td>LIBR 50</td>
<td>Introduction to Library Skills</td>
</tr>
<tr>
<td>LIBR 60</td>
<td>Information Competency: Social Sciences</td>
</tr>
<tr>
<td>LIBR 90A–D</td>
<td>Library Information Seminars</td>
</tr>
<tr>
<td>LIBR 190,X–Z</td>
<td>Directed Study</td>
</tr>
<tr>
<td>LINC 56A,B</td>
<td>Workshop for New Physics Teachers</td>
</tr>
<tr>
<td>LINC 60D</td>
<td>Itools: Ilife &amp; Mac Bundled Software</td>
</tr>
<tr>
<td>LINC 67A</td>
<td>Hyperstudio</td>
</tr>
<tr>
<td>LINC 67B</td>
<td>Drawing K–S</td>
</tr>
<tr>
<td>LINC 67C</td>
<td>Drawing 6–8</td>
</tr>
<tr>
<td>LINC 71B</td>
<td>Free Web Authoring Tools</td>
</tr>
<tr>
<td>LINC 72F</td>
<td>Macromedia Freehand</td>
</tr>
<tr>
<td>LINC 72G</td>
<td>Adobe Pagemaker</td>
</tr>
<tr>
<td>LINC 80C</td>
<td>Easy &amp; Foolproof Design for Multimedia</td>
</tr>
<tr>
<td>LINC 82</td>
<td>Adobe Livemotion</td>
</tr>
<tr>
<td>LINC 83B</td>
<td>Macromedia Director</td>
</tr>
<tr>
<td>LINC 96A</td>
<td>Alphasmarts</td>
</tr>
<tr>
<td>LINC 98</td>
<td>Directed Studies in Digital Learning</td>
</tr>
<tr>
<td>MATH 102</td>
<td>Elementary Plane Geometry</td>
</tr>
<tr>
<td>MATH 103</td>
<td>Essentials of Intermediate Algebra I</td>
</tr>
<tr>
<td>MATH 104</td>
<td>Essentials of Intermediate Algebra II</td>
</tr>
<tr>
<td>MATH 127</td>
<td>Introduction to Mathematics</td>
</tr>
<tr>
<td>MATH 200</td>
<td>Prealgebra</td>
</tr>
<tr>
<td>MATH 250</td>
<td>Arithmetic</td>
</tr>
<tr>
<td>MATH 250L</td>
<td>Basic College Mathematics</td>
</tr>
<tr>
<td>MATH 34HX,HY</td>
<td>Honors Institute Seminar in Mathematics</td>
</tr>
<tr>
<td>MATH 380Z</td>
<td>Math Student Assistance</td>
</tr>
<tr>
<td>MATH 46</td>
<td>Number Systems</td>
</tr>
<tr>
<td>MET 10</td>
<td>Weather Processes</td>
</tr>
<tr>
<td>MET 10L</td>
<td>Meteorology Laboratory</td>
</tr>
<tr>
<td>MET 34H</td>
<td>Honors Institute Seminar in Meteorology</td>
</tr>
<tr>
<td>MET 36,X,Y</td>
<td>Special Projects in Meteorology</td>
</tr>
<tr>
<td>MUS 10C</td>
<td>Music Fundamentals Through the Guitar</td>
</tr>
<tr>
<td>MUS 14AL–CL</td>
<td>Classical Guitar Laboratory</td>
</tr>
<tr>
<td>MUS 15AL–CL</td>
<td>Folk Guitar Laboratory</td>
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<td>Code</td>
<td>Title</td>
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<tr>
<td>MUS 59</td>
<td>Music Publishing for Songwriters</td>
</tr>
<tr>
<td>MUS 60</td>
<td>Audio Recording Techniques</td>
</tr>
<tr>
<td>MUS 64A</td>
<td>Jazz &amp; Swing</td>
</tr>
<tr>
<td>MUS 64B</td>
<td>Funk, Fusion &amp; Hip-Hop</td>
</tr>
<tr>
<td>MUS 64C</td>
<td>Salsa &amp; Latin Jazz</td>
</tr>
<tr>
<td>MUS 65</td>
<td>Careers in Music</td>
</tr>
<tr>
<td>MUS 80</td>
<td>Recording Arts: Sound Reinforcement</td>
</tr>
<tr>
<td>MUSP 19</td>
<td>Concert Choir</td>
</tr>
<tr>
<td>MUSP 41A–F</td>
<td>Applied Music Training</td>
</tr>
<tr>
<td>MUSP 42</td>
<td>Jazz Combo</td>
</tr>
<tr>
<td>MUSP 44</td>
<td>Rhythm &amp; Blues Ensemble</td>
</tr>
<tr>
<td>MUSP 45, V,W</td>
<td>Chamber Ensemble</td>
</tr>
<tr>
<td>NCBS 600</td>
<td>Language &amp; Life Skills Literacy</td>
</tr>
<tr>
<td>NCOA 402</td>
<td>Healthy Living</td>
</tr>
<tr>
<td>NCP 600</td>
<td>Strong Start for Children</td>
</tr>
<tr>
<td>NCP 601</td>
<td>Nurturing Healthy Choices</td>
</tr>
<tr>
<td>NCP 602</td>
<td>Children &amp; Family Resources</td>
</tr>
<tr>
<td>NCP 603</td>
<td>Building Bridges, Opening Doors, Raising Emotionally Healthy Children</td>
</tr>
<tr>
<td>OAS 402, X–Z</td>
<td>Healthy Living</td>
</tr>
<tr>
<td>OAS 403, X–Z</td>
<td>Creating Wellness</td>
</tr>
<tr>
<td>OAS 404, X–Z</td>
<td>Grow Strong Not Old</td>
</tr>
<tr>
<td>OAS 407, X–Z</td>
<td>Staying Mentally Healthy as We Age</td>
</tr>
<tr>
<td>OAS 410, X–Z</td>
<td>Easy Entrepreneurship</td>
</tr>
<tr>
<td>OAS 412, X–Z</td>
<td>Fast Food Epidemic</td>
</tr>
<tr>
<td>OAS 413, X–Z</td>
<td>Writing to A Healthier You</td>
</tr>
<tr>
<td>OAS 414, X–Z</td>
<td>Classic Films On the Big Screen</td>
</tr>
<tr>
<td>OAS 415, X–Z</td>
<td>Language &amp; Culture for Travelers</td>
</tr>
<tr>
<td>OAS 416, X–Z</td>
<td>Music &amp; Humor</td>
</tr>
<tr>
<td>OAS 417, X–Z</td>
<td>The Silk Road: 4000 Years of History From Xian to Rome</td>
</tr>
<tr>
<td>OAS 418, X–Z</td>
<td>Protecting Your Health: How Safe is Your Environment?</td>
</tr>
<tr>
<td>OAS 420, X–Z</td>
<td>What's in a Movie: Film &amp; Aging</td>
</tr>
<tr>
<td>OAS 421, X–Z</td>
<td>Creating New Possibilities</td>
</tr>
<tr>
<td>OCEN 10</td>
<td>General Oceanography</td>
</tr>
<tr>
<td>OCEN 34H</td>
<td>Honors Institute Seminar in Oceanography</td>
</tr>
<tr>
<td>OCEN 36, X,Y</td>
<td>Special Projects in Oceanography</td>
</tr>
<tr>
<td>P T 51</td>
<td>Basic Nutrition for Sports &amp; Fitness</td>
</tr>
<tr>
<td>P T 52</td>
<td>Strength Fitness</td>
</tr>
<tr>
<td>P T 53</td>
<td>Personal Fitness Trainer Internship</td>
</tr>
<tr>
<td>P T 54</td>
<td>Techniques of Fitness Assessment</td>
</tr>
<tr>
<td>P T 55</td>
<td>Theory &amp; Concepts of Exercise Physiology</td>
</tr>
<tr>
<td>P T 56, X,Y</td>
<td>Principles &amp; Analysis of Flexibility</td>
</tr>
<tr>
<td>PHED 7</td>
<td>Athletic Officiating</td>
</tr>
<tr>
<td>PHED 12A</td>
<td>Water Safety Instructor</td>
</tr>
<tr>
<td>PHED 12B</td>
<td>Lifeguard Training</td>
</tr>
<tr>
<td>PHED 18A</td>
<td>Self-Defense</td>
</tr>
<tr>
<td>PHED 26B</td>
<td>Doubles Tennis</td>
</tr>
<tr>
<td>PHED 47A</td>
<td>Step Aerobics</td>
</tr>
<tr>
<td>PHED 50B</td>
<td>Fitness Assessment</td>
</tr>
<tr>
<td>PHED 51</td>
<td>Master's Swimming/Advanced Swim Training</td>
</tr>
<tr>
<td>PHED 101</td>
<td>Tournament Golf Travel Class</td>
</tr>
<tr>
<td>PHOT 1LI, 2LI</td>
<td>General Photo Production Laboratory</td>
</tr>
<tr>
<td>PHOT 34H</td>
<td>Honors Institute Seminar in Photography</td>
</tr>
<tr>
<td>PHOT 53</td>
<td>Introduction to Color Slides</td>
</tr>
<tr>
<td>PHOT 60</td>
<td>Photography &amp; the New Technologies</td>
</tr>
<tr>
<td>PHOT 67</td>
<td>Careers in the Visual Arts</td>
</tr>
<tr>
<td>PHOT 68</td>
<td>Special Topics in Photography</td>
</tr>
<tr>
<td>PHOT 75</td>
<td>Introduction to Computer Graphics</td>
</tr>
<tr>
<td>PHOT 78</td>
<td>Field Study in Photography</td>
</tr>
<tr>
<td>PHOT 83</td>
<td>Service Learning Projects</td>
</tr>
<tr>
<td>PHOT 125</td>
<td>Photographic Laboratory Management</td>
</tr>
<tr>
<td>PHOT 130</td>
<td>Presenting, Preserving &amp; Restoring Photographs</td>
</tr>
<tr>
<td>PHYS 10</td>
<td>Concepts of Physics</td>
</tr>
<tr>
<td>PHYS 32H</td>
<td>Honor Institute Seminar</td>
</tr>
<tr>
<td>PHYS 33H</td>
<td>Honor Institute Seminar</td>
</tr>
<tr>
<td>PHYS 190, X–Z</td>
<td>Directed Study</td>
</tr>
<tr>
<td>POLI 5</td>
<td>Russian &amp; Eastern European Politics</td>
</tr>
<tr>
<td>POLI 6</td>
<td>Black Political Economy</td>
</tr>
<tr>
<td>POLI 7</td>
<td>America Government &amp; Politics From A Black Perspective</td>
</tr>
<tr>
<td>POLI 8</td>
<td>Post World War II Germany</td>
</tr>
<tr>
<td>POLI 24</td>
<td>20th Century American Foreign Policy</td>
</tr>
<tr>
<td>PSE 300</td>
<td>Pedagogy in Physical Science, Mathematics &amp; Engineering</td>
</tr>
<tr>
<td>R T 190, X–Z</td>
<td>Directed Study</td>
</tr>
<tr>
<td>R T 66</td>
<td>Computed Tomography Review</td>
</tr>
<tr>
<td>R T 67</td>
<td>Advanced Topics in Mammography</td>
</tr>
<tr>
<td>R T 68</td>
<td>Magnetic Resonance Imaging Review</td>
</tr>
<tr>
<td>R T 70A, B</td>
<td>Advanced Clinical Experience: Special Procedures</td>
</tr>
<tr>
<td>R T 73</td>
<td>Advanced Clinical Experience - Mammography</td>
</tr>
<tr>
<td>RSPT 50X</td>
<td>Respiratory Therapeutics</td>
</tr>
<tr>
<td>RSPT 60X</td>
<td>Cardiopulmonary Diagnostics</td>
</tr>
<tr>
<td>RSPT 62X</td>
<td>Mechanical Ventilation &amp; Advanced Pharmacology</td>
</tr>
<tr>
<td>RSPT 63X</td>
<td>Neonatal &amp; Pediatric Intensive Care, Home Care &amp; Management</td>
</tr>
<tr>
<td>RSPT 64X</td>
<td>Advanced Pathophysiology &amp; Patient Management &amp; NBRC Examinations</td>
</tr>
<tr>
<td>RSPT 66A</td>
<td>Continuing Education for Respiratory Care: Advanced Patient Management</td>
</tr>
<tr>
<td>RSPT 71A–G</td>
<td>Extended Clinical Internship in Respiratory Therapy</td>
</tr>
<tr>
<td>RSPT 72A–G</td>
<td>Extended Clinical Internship in Respiratory Therapy</td>
</tr>
<tr>
<td>RSPT 73A–G</td>
<td>Extended Clinical Internship in Respiratory Therapy</td>
</tr>
<tr>
<td>RSPT 80A</td>
<td>Respiratory Therapy National Board Exam Review</td>
</tr>
<tr>
<td>RSPT 80B</td>
<td>ECG Interpretation</td>
</tr>
<tr>
<td>RSPT 190, X–Z</td>
<td>Directed Study</td>
</tr>
<tr>
<td>RTT 57</td>
<td>Orientation to Radiation Therapy Technology</td>
</tr>
<tr>
<td>RTT 58A,B</td>
<td>Fundamentals of Radiation Technology for Radiation Therapists</td>
</tr>
<tr>
<td>RTT 59A</td>
<td>Technical Radiation Oncology</td>
</tr>
<tr>
<td>RTT 59B</td>
<td>Radiation Oncology &amp; Pathology</td>
</tr>
<tr>
<td>RTT 60</td>
<td>Patient Care in Radiation Oncology</td>
</tr>
<tr>
<td>RTT 61A,B</td>
<td>Radiation Therapy Physics</td>
</tr>
<tr>
<td>RTT 62B</td>
<td>Radiation Biology</td>
</tr>
<tr>
<td>RTT 63C</td>
<td>Radiation Oncology III</td>
</tr>
<tr>
<td>RTT 64A–C</td>
<td>Clinical Radiation Oncology</td>
</tr>
<tr>
<td>RTT 71A–D</td>
<td>Clinical Practicum</td>
</tr>
<tr>
<td>RTT 72A–B</td>
<td>Dosimetry</td>
</tr>
<tr>
<td>RTT 73A–D</td>
<td>Clinical Practicum</td>
</tr>
<tr>
<td>RTT 80, X,Y</td>
<td>Additional Clinical Practicum</td>
</tr>
<tr>
<td>RTT 190, X–Z</td>
<td>Directed Study</td>
</tr>
<tr>
<td>RTT 200L</td>
<td>Introduction to Radiation Therapy</td>
</tr>
<tr>
<td>SCI 34H</td>
<td>Honors Institute Seminar in Science</td>
</tr>
<tr>
<td>SOCS 460, 490</td>
<td>Supervised Tutoring</td>
</tr>
<tr>
<td>SOCS 75</td>
<td>Tutor Training Methods</td>
</tr>
<tr>
<td>SPAN 10A</td>
<td>Spanish for Heritage Speakers</td>
</tr>
<tr>
<td>SPAN 34H</td>
<td>Honors Institute Seminar in Spanish</td>
</tr>
<tr>
<td>SPAN 36, X–Z</td>
<td>Special Projects in Spanish</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
</tr>
<tr>
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</tr>
<tr>
<td>SPAN 39</td>
<td>Contemporary Hispanic Literature in Translation</td>
</tr>
<tr>
<td>SPAN 110</td>
<td>Spanish Language &amp; Culture</td>
</tr>
<tr>
<td>SPAN 111</td>
<td>Practical Spanish</td>
</tr>
<tr>
<td>SPAN 190,X-Z</td>
<td>Directed Study</td>
</tr>
<tr>
<td>SPED 70</td>
<td>Introduction to Aqua Fitness Principles</td>
</tr>
<tr>
<td>SPED 140</td>
<td>Suicide Triage Intervention: Question, Persuade, Respond (QPR)</td>
</tr>
<tr>
<td>SPED 141</td>
<td>Question, Persuade, Refer (QPR) Gatekeeper Instructor Certification</td>
</tr>
<tr>
<td>SPED 142</td>
<td>Cognitive Behavioral Therapy Approaches for College Mental Health</td>
</tr>
<tr>
<td>THTR 21D</td>
<td>Conservatory Theatre Production</td>
</tr>
<tr>
<td>THTR 24</td>
<td>Readers Theatre</td>
</tr>
<tr>
<td>THTR 42B</td>
<td>Intermediate Scene Design</td>
</tr>
<tr>
<td>THTR 42C</td>
<td>Advanced Scene Design</td>
</tr>
<tr>
<td>THTR 72A</td>
<td>Drafting for the Theatre, Film &amp; Television</td>
</tr>
<tr>
<td>THTR 72C</td>
<td>3D Computer Drafting for the Theatre, Film &amp; Television</td>
</tr>
<tr>
<td>THTR 78</td>
<td>Scenery Projects in Fabric &amp; Wood</td>
</tr>
<tr>
<td>VART 5B</td>
<td>Playwriting</td>
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<td>VART 6</td>
<td>Advanced Playwriting</td>
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<td>Digital Video Editing</td>
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<td>VART 89</td>
<td>Introduction to the Maya 3D System</td>
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<td>VITI 80</td>
<td>Viticulture Skills</td>
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</table>
“When I enrolled at Foothill as a re-entry student in the mid-1970s, I was scared—afraid that I wouldn’t fit in, afraid that I wouldn’t be able to do the work. What I found was a family of teachers who created an environment of personal attention and support for each student. Foothill gives students the opportunity to develop direction. It’s an especially valuable community resource for students who may be returning to school after raising a family, seeking skills for job advancement or enjoying retirement and the opportunity for personal enrichment.”

Ann Cribbs, President & CEO, 2009 Summer Senior Games; Chairwoman, Bay Area Sports Organizing Committee; Gold Medalist, 1960 Olympic Games
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Foothill College in Los Altos Hills, and De Anza College in Cupertino, are part of the Foothill-De Anza Community College District.

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Holcroft, Carolyn (2002) Biology
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Jardali, Najwa (1991) English for Second Language Learners
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<tr>
<th>Name</th>
<th>Position</th>
<th>Education</th>
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<tr>
<td>Chivington, Thomas H.</td>
<td>University Director, Economic Development, Grants, Mathematics</td>
<td>B.A., M.A., San Francisco State University</td>
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<tr>
<td>Ching, Lila</td>
<td>English as a Second Language</td>
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<td>Clark, Nancy Howe</td>
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<td>B.A., M.A., Stanford University</td>
<td>Colorado State College</td>
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<td>Connor, Ann Wilkinson</td>
<td>Associate Dean, Instruction, Off-Campus Programs, Interchange</td>
<td>B.A., M.A., San Francisco State University</td>
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<td>Conom, Tom</td>
<td>Manager, College Police &amp; Security Services</td>
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<td>Cotter, Stanley</td>
<td>University of Illinois</td>
<td>B.A., University of California, Berkeley, M.A., University of Illinois</td>
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<td>Critchfield, Frederick</td>
<td>Director, Economic Development, Grants, Apprenticeship Programs</td>
<td>B.S., Utah State University, M.A., Stanford University</td>
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<td>Cross, Truman B.</td>
<td>History</td>
<td>B.A., Portland State College, M.A., George Washington University, Ph.D., Indiana University</td>
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<td>De Luna, Yaya</td>
<td>History, Sociology</td>
<td>B.A., M.A., San Jose State University, Ph.D., University of Southern California</td>
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<td>De Palma, Barton</td>
<td>Art, Film</td>
<td>B.F.A., M.A.F., University of Pennsylvania</td>
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<td>Dilernoardo, Christopher</td>
<td>Geology</td>
<td>B.A., M.S., San Jose State University, Ph.D., University of California, Santa Cruz</td>
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<td>Dillon, William M.</td>
<td>Director, Aviation Program</td>
<td>B.S., Cheney State University, M.S., California State University, Hayward, A.T.P. C.S.I.</td>
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<tr>
<td>Di Nucci, Linda</td>
<td>Reach Program</td>
<td>A.A., West Valley College, B.A., M.A., San Jose State University, R.N., Western Pennsylvania Hospital School of Nursing</td>
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<td>Dominguez, Arno</td>
<td>Physical Education</td>
<td>B.A., San Jose State University, M.A., St. Mary's College</td>
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<td>Dong, Raymond P.</td>
<td>Electronics</td>
<td>B.S., Tri-City University, M.A., Michigan State University</td>
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<td>Dorsey, Donald</td>
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<td>B.A., Prairie View &amp; A M College, M.A., San Jose State University</td>
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<td>Downing, W. Leacher</td>
<td>Photography</td>
<td>B.A., University of California, Santa Barbara, M.A., San Diego State University</td>
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<td>Elby, William L.</td>
<td>Spanish</td>
<td>B.A., M.A., University of Denver</td>
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<td>Ellsworth, Oral T.</td>
<td>Electronic Audience</td>
<td>B.A., Ph. D., University of California, Los Angeles</td>
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<td>Ettlinger, Stanley L.</td>
<td>Graphic Design</td>
<td>B.A., Pratt Institute, M.A., New York University</td>
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<td>Fairchild, James R.</td>
<td>Football, Physical Education</td>
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<td>Feeter, J. William</td>
<td>Animal Health Technology</td>
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<td>Felix, Raul</td>
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<td>Fetler, James M.</td>
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<td>Fish, Ruth Anne</td>
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<td>Flowers, April</td>
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<tr>
<td>Gauss, Mary Jane Powell</td>
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<tr>
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<td>Gutierrez, Malcolm D.</td>
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<tr>
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<td>Hasling, John</td>
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<tr>
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<td>Hendrickson, Maribeth</td>
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<tr>
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<td>Heusel, Marylou M.</td>
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<td>Hicks, Elizabeth M.</td>
<td>Aviation</td>
<td>B.A., M.A., San Jose State University</td>
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<td>Holler, Gordon W.</td>
<td>Art</td>
<td>B.A., University of Nebraska, M.A., University of California</td>
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<td>Hord, Warren</td>
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<td>Hutchinson, Clarence G.</td>
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<td>Johnson, David H.</td>
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<td>Kent, Henry E.</td>
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<td>Keiffer Gillette, Karen</td>
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<td>Kettles, John</td>
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<td>Kohn, Gerald D.</td>
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<td>Lindauer, Charles</td>
<td>B.S.E.E., City College of New York, M.S.E.E., City College of New York, Ph.D., Virginia Polytechnic Institute</td>
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<td></td>
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<td></td>
</tr>
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<td></td>
</tr>
<tr>
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<td></td>
</tr>
<tr>
<td>Mautz, Walter S.</td>
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<td>B.A., San Jose State University, M.A., Stanford University</td>
<td></td>
</tr>
<tr>
<td>McCarty, Lois</td>
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<td>B.A., M.S., San Jose State University</td>
<td></td>
</tr>
<tr>
<td>McCulla, Ernest (Joe)</td>
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<td>B.A., M.A., Loyola University</td>
<td></td>
</tr>
<tr>
<td>McDonald, Marilyn M.</td>
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<td></td>
</tr>
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<td></td>
</tr>
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<td></td>
</tr>
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<td>A.A., San Jose State University, B.A., M.A., Ph.D., U.C. Berkeley</td>
<td></td>
</tr>
<tr>
<td>Mendrosito, Roxanne</td>
<td>Librarian, Library Technology</td>
<td>B.A., Dickinson University, M.S., Simmons Graduate School, Boston, Ph.D., Boston College</td>
<td></td>
</tr>
<tr>
<td>Michalski, Anthony</td>
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<td>B.A., Hunter College, M.A., San Jose State University</td>
<td></td>
</tr>
</tbody>
</table>
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Foothill College 2010–2011 www.foothill.edu

285
A

A.A. & A.S. Degrees  6–7, 28–34, 37, 40, 54, 111
General Education 59
Requirements 54
Academic
Calendar  See Inside Front Cover
Dishonesty 43
Disqualification 38
Divisions Office Phone
Numbers 27
Honor Code 43
In-Class Issues 38
Policies 35–52
Prerequisites 36
Regulations 38
Renewal 38
Skills 112
Accessible
Elevators 296
Parking 296
Access Information 296
Accounting 29, 30, 62, 112–113
Accreditation 8
Accreditation of Allied Health
Education Programs 8
Accrediting Commission for
Community & Junior Colleges 8
ADA 504 Coordinator 17
Adaptive
Aquatics 30, 62
Fitness 29
Fitness Therapy 30, 63
Learning 16
Community Based 113–115
Computer Access Center 116
Gerontology 116
Learning Disability 116–117
Special Education 117–118
Transition to Work 118–121
Physical Education 120–121
Add/Drop Date 38
Admission
Enrollment Policies 36
Guidelines 36
Advertising 121
Air Conditioning & Refrigeration/Heating 29
AJAX 33
Allied Health Sciences 121
All-Weather Track 8
Alternate Path for Students with Disability 17
Alternative Media 1, 17, 293
Altos Conference Room 10
American Dental Association 8
American Literature 32
American Medical Association 8
American Studies 30, 63
Americans With Disabilities Act 44
American Veterinary Medical Association 8
Anthropology 30, 63–65, 121–122
Anthropology, Cultural 30
Appreciation Hall 8
Apprenticeship
Electrician 123–124
Elevator Constructors 65
Iron Workers 124–125
Pipe Trades 65–66, 125–128
Pipe Trades, Sheet Metal, Field Ironworkers 128–131
Pipe Trades, Sheet Metal, Field Ironworkers, Elevators 134–138
Programs 29, 122
Sheet Metal 66–67, 131–133
Sound & Communication 67, 133–134
Arabic 138
Art 138–142
General 30, 67–68
History 30, 68–69
Studio 30, 69
Two-Dimensional 30
Articulation Agreements 56
Asian Pacific Islander Month 11
Assessment (Testing) 7
Assignments & Examinations 38
Associated Students of Foothill College 10, 12
Associate in Arts Degree 6–7, 28–34, 37, 40, 54, 111
Associate in Science Degree 6–7, 28–34, 37, 54, 111
Astronomy 142–143
Athletic Injury Care 30
Physical Education 69–70
Athletics 10
Attendance 38
Audit Request Procedures 39
Azumaya Meditation Pavilion 8
B

Bamboo Garden 8
Basic Skills, Non-Credit 233
Biological Sciences 30, 70
Biography 143–144
Biotechnology 29, 145–146
Black History Month 11
Board of Governors Enrollment Fee Waiver 25
Board of Trustees 278
Book Buy Back 26
Bookkeeping Specialist 30
Bookstore 10, 26
Braille 1, 293
British Literature 32
Broadcast Business Sales 34
Business 147–148
Administrative 30, 70–71
Communication 31
International Studies 31, 71–72
Management 30
Office Administration 29
Office Technology 29, 148–149
Technology
Help Desk/Technical Support 72
Help Desk/Tech Support 31
Office Administration 31, 72
Buy e-books 26

C

Calendar
Academic  See Inside Front Cover
CAL Grants 24
California
Chafee Grant 25
State University General Education Breadth Requirements 61
CalWORKS 20, 25
Campus
Abroad Program 18
Center 8, 10
Clubs 11
Highlights 8
Improvements 8
Information 293
Map, Key & Legend 296–297
Phone Numbers 3
Radio 11
Security Summary Report 52
Support Centers 15
<table>
<thead>
<tr>
<th>Topic</th>
<th>Page(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cancellation of Classes</td>
<td>39</td>
</tr>
<tr>
<td>Career Center</td>
<td>14</td>
</tr>
<tr>
<td>Career Life Planning</td>
<td>149</td>
</tr>
<tr>
<td>Catalog Rights/Requirements for Graduation</td>
<td>54</td>
</tr>
<tr>
<td>Celebrity Forum</td>
<td>8</td>
</tr>
<tr>
<td>Center for Applied Competitive Technologies</td>
<td>18</td>
</tr>
<tr>
<td>Ceramics</td>
<td>30</td>
</tr>
<tr>
<td>Certificate</td>
<td>28</td>
</tr>
<tr>
<td>Achievement</td>
<td>28</td>
</tr>
<tr>
<td>Career</td>
<td>28</td>
</tr>
<tr>
<td>Completion</td>
<td>28</td>
</tr>
<tr>
<td>Proficiency</td>
<td>28</td>
</tr>
<tr>
<td>Programs</td>
<td>28</td>
</tr>
<tr>
<td>Skills</td>
<td>28</td>
</tr>
<tr>
<td>Specialization</td>
<td>28</td>
</tr>
<tr>
<td>Certification of General Education for Transfer</td>
<td>55</td>
</tr>
<tr>
<td>Certified Electrician</td>
<td>149–150</td>
</tr>
<tr>
<td>Challenging Prerequisites</td>
<td>36</td>
</tr>
<tr>
<td>Characterization &amp; Modeling</td>
<td>33</td>
</tr>
<tr>
<td>Cheating</td>
<td>43</td>
</tr>
<tr>
<td>Cheerleading</td>
<td>11</td>
</tr>
<tr>
<td>Chemistry</td>
<td>8, 31, 73, 150–151</td>
</tr>
<tr>
<td>Child Development</td>
<td>29, 31, 73–75, 151–153</td>
</tr>
<tr>
<td>Child Development Teacher</td>
<td>31</td>
</tr>
<tr>
<td>Chinese</td>
<td>31, 75</td>
</tr>
<tr>
<td>Conversation</td>
<td>31</td>
</tr>
<tr>
<td>Heritage Room</td>
<td>8</td>
</tr>
<tr>
<td>Mandarin</td>
<td>153–271</td>
</tr>
<tr>
<td>Choral Building</td>
<td>8</td>
</tr>
<tr>
<td>Citations (Parking)</td>
<td>28</td>
</tr>
<tr>
<td>Class</td>
<td></td>
</tr>
<tr>
<td>Preparation/Progress</td>
<td>39</td>
</tr>
<tr>
<td>Size &amp; Frequency</td>
<td>39</td>
</tr>
<tr>
<td>Classified Staff</td>
<td>285–286</td>
</tr>
<tr>
<td>Coast Conference of the California Community College Athletic</td>
<td>10</td>
</tr>
<tr>
<td>Association</td>
<td>10</td>
</tr>
<tr>
<td>Code of Conduct</td>
<td>46</td>
</tr>
<tr>
<td>Code of Conduct for ETUDES</td>
<td></td>
</tr>
<tr>
<td>Internet-Based Courses</td>
<td>51</td>
</tr>
<tr>
<td>College</td>
<td></td>
</tr>
<tr>
<td>Costs</td>
<td>21</td>
</tr>
<tr>
<td>District Policies</td>
<td>43</td>
</tr>
<tr>
<td>Hour</td>
<td>11</td>
</tr>
<tr>
<td>Profile</td>
<td>5</td>
</tr>
<tr>
<td>Commercial Use</td>
<td>51</td>
</tr>
<tr>
<td>Communication Studies</td>
<td>31, 75–76, 154–156</td>
</tr>
<tr>
<td>Community Service</td>
<td>11</td>
</tr>
<tr>
<td>Complaints &amp; Grievance Process</td>
<td>45</td>
</tr>
<tr>
<td>Computer</td>
<td></td>
</tr>
<tr>
<td>Centers</td>
<td>15</td>
</tr>
<tr>
<td>Information Systems</td>
<td>156–162</td>
</tr>
<tr>
<td>Networking &amp; Electronics</td>
<td>162–167</td>
</tr>
<tr>
<td>on the Internet</td>
<td>171–174</td>
</tr>
<tr>
<td>Science</td>
<td>6–7, 30–34, 37, 40, 54, 76–77, 111</td>
</tr>
<tr>
<td>Software Development</td>
<td>29, 31, 77–78</td>
</tr>
<tr>
<td>&amp; Software Training</td>
<td>167–171</td>
</tr>
<tr>
<td>Computer Information &amp; Resources Policy, Misuse of</td>
<td>50</td>
</tr>
<tr>
<td>Computers</td>
<td></td>
</tr>
<tr>
<td>Technology &amp; Information Systems</td>
<td>29</td>
</tr>
<tr>
<td>Consequences of Academic Dishonesty</td>
<td>43</td>
</tr>
<tr>
<td>Contents</td>
<td>3</td>
</tr>
<tr>
<td>Continuing Student</td>
<td>15</td>
</tr>
<tr>
<td>Continuous Enrollment</td>
<td>55</td>
</tr>
<tr>
<td>Cooperative</td>
<td></td>
</tr>
<tr>
<td>Agencies Resources for Education</td>
<td>17</td>
</tr>
<tr>
<td>Work Experience</td>
<td>18, 174–271</td>
</tr>
<tr>
<td>Copyright</td>
<td>49–51</td>
</tr>
<tr>
<td>infringement</td>
<td>50</td>
</tr>
<tr>
<td>Copyrighted Materials, Illegal Distribution</td>
<td>49</td>
</tr>
<tr>
<td>Cornell University</td>
<td>56</td>
</tr>
<tr>
<td>Cost of Attendance</td>
<td>23</td>
</tr>
<tr>
<td>Council on Higher Education</td>
<td>8</td>
</tr>
<tr>
<td>Accreditation</td>
<td>8</td>
</tr>
<tr>
<td>Counseling</td>
<td>14, 55–56, 176–177</td>
</tr>
<tr>
<td>Appointments</td>
<td>14</td>
</tr>
<tr>
<td>Course</td>
<td></td>
</tr>
<tr>
<td>Grading Categories</td>
<td>40</td>
</tr>
<tr>
<td>Listings</td>
<td>111–276</td>
</tr>
<tr>
<td>Numbering System</td>
<td>55, 111</td>
</tr>
<tr>
<td>Repetition</td>
<td>39</td>
</tr>
<tr>
<td>Substitutions</td>
<td>38</td>
</tr>
<tr>
<td>Creative Writing</td>
<td>31, 78, 177–178</td>
</tr>
<tr>
<td>Credit</td>
<td></td>
</tr>
<tr>
<td>Academic</td>
<td>36</td>
</tr>
<tr>
<td>by Examination</td>
<td>39</td>
</tr>
<tr>
<td>Transfer from Another</td>
<td>56</td>
</tr>
<tr>
<td>Institution</td>
<td>40</td>
</tr>
<tr>
<td>Crime Awareness Report</td>
<td>52</td>
</tr>
<tr>
<td>CSU</td>
<td>61</td>
</tr>
<tr>
<td>East Bay</td>
<td>56</td>
</tr>
<tr>
<td>Monterey Bay</td>
<td>56</td>
</tr>
<tr>
<td>CSU GE</td>
<td></td>
</tr>
<tr>
<td>Transfer Studies</td>
<td>107–108</td>
</tr>
<tr>
<td>CTIS Division Majors</td>
<td>29</td>
</tr>
<tr>
<td>Cultural Anthropology</td>
<td>30</td>
</tr>
<tr>
<td>Cultural Enrichment</td>
<td>11</td>
</tr>
<tr>
<td>Currency of Major/Certificate Requirements</td>
<td>55</td>
</tr>
<tr>
<td>Curriculum Advisory Committees</td>
<td>29</td>
</tr>
<tr>
<td>D</td>
<td></td>
</tr>
<tr>
<td>Dance</td>
<td>178–179</td>
</tr>
<tr>
<td>Squad</td>
<td>11</td>
</tr>
<tr>
<td>Database Management</td>
<td>29, 32, 78–79</td>
</tr>
<tr>
<td>Database/SQL</td>
<td>31</td>
</tr>
<tr>
<td>Deaf Access</td>
<td>17, 296</td>
</tr>
<tr>
<td>De Anza College</td>
<td>6, 8, 18, 20, 37, 55, 278</td>
</tr>
<tr>
<td>Definitions, Student Grievance</td>
<td>47</td>
</tr>
<tr>
<td>Dental</td>
<td></td>
</tr>
<tr>
<td>Assisting</td>
<td>29, 32, 79–80, 179–180</td>
</tr>
<tr>
<td>Health Clinic</td>
<td>8</td>
</tr>
<tr>
<td>Hygiene</td>
<td>29, 32, 80, 180–183</td>
</tr>
<tr>
<td>Design Center</td>
<td>10</td>
</tr>
<tr>
<td>Desktop Publishing</td>
<td>31</td>
</tr>
<tr>
<td>Diagnostic Medical Sonography</td>
<td>29, 32, 80–81, 183–185</td>
</tr>
<tr>
<td>Digital Imaging</td>
<td>33</td>
</tr>
<tr>
<td>Digital Millennium Copyright Act</td>
<td>49</td>
</tr>
<tr>
<td>Dining Room</td>
<td>10</td>
</tr>
<tr>
<td>Directions to Foothill College</td>
<td></td>
</tr>
<tr>
<td>Main Campus</td>
<td>295</td>
</tr>
<tr>
<td>Middlefield Campus</td>
<td>295</td>
</tr>
<tr>
<td>Disabled Student Programs &amp; Services</td>
<td>16</td>
</tr>
<tr>
<td>Disadvantaged Students</td>
<td>17</td>
</tr>
<tr>
<td>Discontinued Degrees</td>
<td>55</td>
</tr>
<tr>
<td>Dispute Resolution</td>
<td>30</td>
</tr>
<tr>
<td>Disqualification</td>
<td>38</td>
</tr>
<tr>
<td>District Police</td>
<td>10, 294</td>
</tr>
<tr>
<td>Diversity</td>
<td>7</td>
</tr>
<tr>
<td>Drop/Add Date</td>
<td>38</td>
</tr>
<tr>
<td>Drug-Free Campus Policy</td>
<td>45</td>
</tr>
<tr>
<td>E</td>
<td></td>
</tr>
<tr>
<td>Early Childhood Education</td>
<td>31</td>
</tr>
<tr>
<td>E-Commerce</td>
<td>30</td>
</tr>
<tr>
<td>Economics</td>
<td>32, 81, 185</td>
</tr>
<tr>
<td>Education</td>
<td>185</td>
</tr>
<tr>
<td>Electrician</td>
<td></td>
</tr>
<tr>
<td>General</td>
<td>84–85</td>
</tr>
<tr>
<td>Residential Electrician</td>
<td>29</td>
</tr>
<tr>
<td>Electronic Business</td>
<td>30, 33</td>
</tr>
<tr>
<td>Elevator Construction</td>
<td>29</td>
</tr>
<tr>
<td>Emergency</td>
<td></td>
</tr>
<tr>
<td>Loans</td>
<td>25</td>
</tr>
<tr>
<td>Medical Technician</td>
<td>81, 186</td>
</tr>
<tr>
<td>Paramedic</td>
<td>186–189</td>
</tr>
<tr>
<td>Emergency Medical Technician</td>
<td>32</td>
</tr>
<tr>
<td>Department</td>
<td>Pages</td>
</tr>
<tr>
<td>------------------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>Emeritus Faculty</td>
<td>282–284</td>
</tr>
<tr>
<td>Employment</td>
<td>25</td>
</tr>
<tr>
<td>Engineering</td>
<td>32, 56, 81, 189</td>
</tr>
<tr>
<td>English</td>
<td>32, 81–83, 190–194</td>
</tr>
<tr>
<td>English as a Second Language</td>
<td>195–197</td>
</tr>
<tr>
<td>English for Second Language Learners</td>
<td>195–197</td>
</tr>
<tr>
<td>Enology &amp; Viticulture</td>
<td>29, 34, 110</td>
</tr>
<tr>
<td>Enrolled Agent Preparation</td>
<td>30</td>
</tr>
<tr>
<td>Enterprise Networking</td>
<td>29, 32, 83</td>
</tr>
<tr>
<td>Entrepreneurship</td>
<td>30</td>
</tr>
<tr>
<td>Environmental Horticulture &amp; Design</td>
<td>29, 32, 84, 198–201</td>
</tr>
<tr>
<td>Estimated Annual Cost of Attending</td>
<td></td>
</tr>
<tr>
<td>Foothill College</td>
<td>22</td>
</tr>
<tr>
<td>Evening College</td>
<td>18</td>
</tr>
<tr>
<td>Exception Policies</td>
<td></td>
</tr>
<tr>
<td>Admissions &amp; Registration</td>
<td>37</td>
</tr>
<tr>
<td>Extended Opportunity Program &amp; Services</td>
<td>24</td>
</tr>
<tr>
<td>F-1 Visas</td>
<td>18–19</td>
</tr>
<tr>
<td>Facility Rental</td>
<td>8</td>
</tr>
<tr>
<td>Faculty &amp; Staff</td>
<td>277</td>
</tr>
<tr>
<td>FAFSA</td>
<td>23</td>
</tr>
<tr>
<td>Family Education Rights &amp; Privacy Act</td>
<td>42</td>
</tr>
<tr>
<td>Fashion Merchandising</td>
<td>201</td>
</tr>
<tr>
<td>Federal</td>
<td></td>
</tr>
<tr>
<td>Direct Subsidized &amp; Unsubsidized Student Loan</td>
<td>24</td>
</tr>
<tr>
<td>Pell Grant</td>
<td>23</td>
</tr>
<tr>
<td>Perkins Loan</td>
<td>24</td>
</tr>
<tr>
<td>Supplemental Educational Opportunity Grant</td>
<td>23</td>
</tr>
<tr>
<td>Work Study</td>
<td>24</td>
</tr>
<tr>
<td>FERPA</td>
<td>42</td>
</tr>
<tr>
<td>File Sharing</td>
<td>49</td>
</tr>
<tr>
<td>Film/Television</td>
<td>see Video Arts</td>
</tr>
<tr>
<td>Final Examinations</td>
<td>40</td>
</tr>
<tr>
<td>Financial Accounting</td>
<td>30</td>
</tr>
<tr>
<td>Financial Aid</td>
<td></td>
</tr>
<tr>
<td>Answers</td>
<td>25</td>
</tr>
<tr>
<td>Eligibility</td>
<td>23</td>
</tr>
<tr>
<td>Planning</td>
<td>21</td>
</tr>
<tr>
<td>Fine Arts</td>
<td>201–202</td>
</tr>
<tr>
<td>Football Stadium</td>
<td>8</td>
</tr>
<tr>
<td>Foothill College Administration</td>
<td>279</td>
</tr>
<tr>
<td>Foothill-De Anza Community College District</td>
<td>1, 6, 278</td>
</tr>
<tr>
<td>Foothill Global Access</td>
<td>18</td>
</tr>
<tr>
<td>Former Student</td>
<td>15</td>
</tr>
<tr>
<td>Four-Year Institution</td>
<td></td>
</tr>
<tr>
<td>Requirements</td>
<td>56</td>
</tr>
<tr>
<td>Free Application for Federal Student Aid</td>
<td>23</td>
</tr>
<tr>
<td>Freshman</td>
<td>15</td>
</tr>
<tr>
<td>Full-Time Student</td>
<td>15</td>
</tr>
<tr>
<td>Gay &amp; Lesbian Heritage Month</td>
<td>11</td>
</tr>
<tr>
<td>General Education</td>
<td></td>
</tr>
<tr>
<td>Coursework</td>
<td>28</td>
</tr>
<tr>
<td>Reciprocity</td>
<td>54</td>
</tr>
<tr>
<td>Requirements</td>
<td>59</td>
</tr>
<tr>
<td>Electrician</td>
<td>32, 84–85</td>
</tr>
<tr>
<td>Music</td>
<td>94–95</td>
</tr>
<tr>
<td>Program Requirements</td>
<td>37</td>
</tr>
<tr>
<td>Registration Information</td>
<td>37</td>
</tr>
<tr>
<td>General Studies</td>
<td></td>
</tr>
<tr>
<td>Humanities</td>
<td>32, 85–86</td>
</tr>
<tr>
<td>Science</td>
<td>32, 86–87</td>
</tr>
<tr>
<td>Social Science</td>
<td>32, 87–88</td>
</tr>
<tr>
<td>Geographic Information Systems</td>
<td>29, 32</td>
</tr>
<tr>
<td>Geography</td>
<td>32, 88, 202–203</td>
</tr>
<tr>
<td>Geology</td>
<td>203</td>
</tr>
<tr>
<td>Geriatric Home Aide, Non-Credit</td>
<td>97</td>
</tr>
<tr>
<td>German</td>
<td>203–204</td>
</tr>
<tr>
<td>Gerontology</td>
<td>32, 88–89</td>
</tr>
<tr>
<td>Golden Gate University</td>
<td>56</td>
</tr>
<tr>
<td>Golf Instruction Complex</td>
<td>8</td>
</tr>
<tr>
<td>Grade Changes</td>
<td>41</td>
</tr>
<tr>
<td>Grade Point Average</td>
<td>38</td>
</tr>
<tr>
<td>Grade Requirements for Specified Career Program Courses</td>
<td>29</td>
</tr>
<tr>
<td>Grading Scale</td>
<td>41</td>
</tr>
<tr>
<td>Graduation</td>
<td></td>
</tr>
<tr>
<td>Requirements</td>
<td>38</td>
</tr>
<tr>
<td>Graphics &amp; Interactive Design</td>
<td>29, 32, 89–110, 204–206</td>
</tr>
<tr>
<td>Grievance Hearing Committee</td>
<td>48</td>
</tr>
<tr>
<td>Grievance Process</td>
<td>45, 48</td>
</tr>
<tr>
<td>Harassment</td>
<td>50</td>
</tr>
<tr>
<td>Health</td>
<td>206</td>
</tr>
<tr>
<td>Health Services</td>
<td>10, 16</td>
</tr>
<tr>
<td>Heating/Refrigeration &amp; Air Conditioning</td>
<td>29</td>
</tr>
<tr>
<td>Hebrew</td>
<td>206</td>
</tr>
<tr>
<td>Help Desk</td>
<td>29</td>
</tr>
<tr>
<td>Higher Education Opportunity</td>
<td></td>
</tr>
<tr>
<td>Act</td>
<td>49</td>
</tr>
<tr>
<td>High School Credits at Foothill</td>
<td>41</td>
</tr>
<tr>
<td>History</td>
<td>6, 33, 90, 206–208</td>
</tr>
<tr>
<td>Honors Institute</td>
<td>42</td>
</tr>
<tr>
<td>Horticulture Institute</td>
<td>42</td>
</tr>
<tr>
<td>Housing</td>
<td>16</td>
</tr>
<tr>
<td>Humanities</td>
<td>208</td>
</tr>
<tr>
<td>Humanities, General Studies</td>
<td>85–86</td>
</tr>
<tr>
<td>IGETC</td>
<td></td>
</tr>
<tr>
<td>Transfer Studies</td>
<td>108–109</td>
</tr>
<tr>
<td>Illegal Distribution of Copyrighted Materials</td>
<td>49</td>
</tr>
<tr>
<td>Illustration</td>
<td>32</td>
</tr>
<tr>
<td>Inclusion &amp; Children with Special Needs</td>
<td>31</td>
</tr>
<tr>
<td>Incomplete Grade</td>
<td>41</td>
</tr>
<tr>
<td>In-Demand Consulting &amp; Training Services</td>
<td>18</td>
</tr>
<tr>
<td>Individual Studies</td>
<td>54</td>
</tr>
<tr>
<td>Infant Toddler Development</td>
<td>31</td>
</tr>
<tr>
<td>Informatics</td>
<td>29, 33, 90–91</td>
</tr>
<tr>
<td>Instructional Materials Fee</td>
<td>22</td>
</tr>
<tr>
<td>Instructional Support Center</td>
<td>8</td>
</tr>
<tr>
<td>Intellectual Property</td>
<td>49</td>
</tr>
<tr>
<td>Interactive &amp; Multimedia Technologies</td>
<td>29, 33, 91</td>
</tr>
<tr>
<td>Intercollegiate Teams</td>
<td>10</td>
</tr>
<tr>
<td>Interdisciplinary Electronic Arts (IDEA) Center</td>
<td>8</td>
</tr>
<tr>
<td>International Business Strategy</td>
<td>31</td>
</tr>
<tr>
<td>Programs</td>
<td>18</td>
</tr>
<tr>
<td>Student</td>
<td>15</td>
</tr>
<tr>
<td>Internet Technology</td>
<td>29, 33, 91–92</td>
</tr>
<tr>
<td>Internship Program</td>
<td>19</td>
</tr>
<tr>
<td>Intersegmental General Education Transfer Curriculum</td>
<td>60</td>
</tr>
<tr>
<td>Intramural</td>
<td></td>
</tr>
<tr>
<td>Recreation Program</td>
<td>10</td>
</tr>
<tr>
<td>Sports</td>
<td>11</td>
</tr>
<tr>
<td>Introduction to College Course</td>
<td>14</td>
</tr>
<tr>
<td>Ironworking</td>
<td>29</td>
</tr>
<tr>
<td>Italian</td>
<td>208</td>
</tr>
<tr>
<td>Japanese</td>
<td>33, 92–93, 208–210</td>
</tr>
<tr>
<td>Cultural Center</td>
<td>8</td>
</tr>
<tr>
<td>Japanese Conversation &amp; Culture</td>
<td>33</td>
</tr>
<tr>
<td>Japanese Tutoring</td>
<td>33</td>
</tr>
<tr>
<td>Jewish Heritage Month</td>
<td>11</td>
</tr>
<tr>
<td>Job Readiness, Non-Credit</td>
<td>97</td>
</tr>
<tr>
<td>Journeymen</td>
<td>210–212</td>
</tr>
</tbody>
</table>
K

KFJC-FM 89.7  11
Krause Center for Innovation  8, 15

L

Language Arts  8, 15, 212
Laboratory  15
Large Print  1, 293
Latino Heritage Month  11
Law & Society  33, 93
Leadership & Services  12, 33, 93–94
Learning in New Media Classrooms (LINC) 212–221
Library  8
Science  221
Services  15
Limited English Skills Policy  44
Linguistics  32, 221
Linux/UNIX System Operation & Administration  31
Literary Genres  32
Lohman Theatre  8
Lower Campus Complex  8
Lower-Division Transfer  57

M

Main Campus  1, 295
Major & Certificate Requirements  62–110
Major Requirements  57
Maps
Area & Middlefield Campus  295
Foothill College Campus  296–297
Marketing  30
Materials Fee  23
Math Center  8
Mathematical Foundations, Non-Credit  97
Mathematics  33, 94, 221–223
Math, Physics & Chemistry Center  16
Matriculation  14, 36
MCITP Enterprise Administrator  32
MCITP Server Administrator  32
Media Center  16
Medical Anthropology  30
Menlo College  56
Meteorology  224
Microsoft Certified Application Developer #C  31
Microsoft Certified Desktop Support Technician  32
Microsoft Certified IT Professional (MCITP) Database Administration  32
Middle College  10, 19
Middlefield Campus  1, 8, 19
Map  295
Military Service  18
Minimum Admission Requirements  58
Mission Statement  6
Misuse of Computer Information & Resources Policy  50
Motion Graphics  33
Multicultural Literature  32
Multimedia Arts IDEA Computer Lab  8
Multimedia Technologies, Interactive  91
Music  29, 224–229
General  33, 54–55, 59, 94–95
Performance  229–232
Technology  8, 29, 33, 95–96
Mutual Respect Policy  45

N

Nanobiotechnology  33
Nanofabrication  33
Nanoscience  33, 96–97
Nanotechnology  232–233
National Hispanic University  56
Network Security  32
New Student  15
New Transfer Student  15
Non-Credit
Basic Skills  233
Courses  20
English as a Second Language  234
Geriatric Home Aide  97
Job Readiness  97
Mathematical Foundations  97
Parenting Education  234
Short-Term Vocational  234
Work Force Preparation  234–271
Non-Discrimination Policy  44
Non-Resident
Student  15
Tuition Fee  23
Non-Transcriptable Certificates  55
NorCal Football Conference  10
No-Smoking Policy  46
Notre Dame de Namur University  56
Object-Oriented Software Using C++  31
Object-Oriented Software Using Java  31
Observatory  8
Occupational Training Institute (OTI)  20
Oceanography  235
Off-Campus Programs  19
Trips & Activities  42
Online Degrees  55
Online Veterinary Assisting  34
Open Course Policy  36
Open-Entry/Open-Exit Classes  42
Open Source Database  32
Oracle Database Administration  32
Oracle Database Developer  32
Other Approved Courses  272–276
Oversubscribed Programs  57
OwlCard  10
Painting  30
Paramedic  29, 33, 97–98
Parenting Education, Non-Credit  234
Parking  296
Citations  46
Regulations  294
Payroll Preparation  30
Performing Arts  235
Personal Support Services  16
Petition for Graduation  54
Pharmacy Technician  29, 33, 98–110, 236–237
Philosophy  33, 98, 237–241
Photo Criticism  33
Photographic Laboratory Technician  33
Photography  29, 33, 99–100, 238–241
Physical Anthropology  30
Physical Education  6, 10, 17, 27, 29, 33, 54–56, 59, 60, 100, 241–247
Physical Sciences & Engineering  247
Physics  8, 33, 100, 248
Placement Testing  7, 15, 36, 37
Plagiarism  43
Plumbing/Pipefitting  29
PLUS Loan  24
Police Conduct  46
Policies  35–52
Political Science  34, 100, 248–249
Popular Culture  34, 100–101
Primary Care Associate  29, 34, 101, 249–250
Printmaking Studio  33
Priority Application Filing Period  58
Probation  38
Professional Programs Leading to a Career Upon Completion  29
Professional & Work Force Development  18
Programs of Study  27
Program Supervision & Mentoring  31
Project Veterans Program  20
Pro Tools  33
Psychological Services  7, 10, 16
Psychology  34, 101–102, 250–251
Public Events & Services  8
Purchase Used Textbooks  26
Radio  29, 251–253
Radio Broadcasting  29, 34, 102–103
Radiologic Technology  29, 34, 103, 253–255
Real Estate  29, 34, 103, 255–256
Real Estate Salesperson  34
Recording Industry Association of America  49
Recreation Area  10
Refrigeration/Heating & Air Conditioning  29
Refunds  23
Rent textbooks  26
Repayment  23
Request for Grievance Hearing  48
Requirements (Academic)  53–60
Reserve Officer Training Corps (ROTC)  257
Residency Requirements  37
Resolution of Grievances, Informal  47
Respiratory Therapy  29, 34, 104
Respiratory Therapy Technology  256–257
Revision of College Policies  36
RIAA  49
Robert C. Smithwick Theatre  8
Rules & Policies May Change  1
San Jose State University (CSU)  56
Santa Clara University  56
Scholarships  25
Scholastic Honors  42
School-Age Child Care  31
Science, General Studies  86–87
Science, Political  100
Select a Major  28
Sell Your Books During Book Buyback  26
Service & Leadership  93–94
Service Learning Volunteer Center  10
Sexual Harassment Protection Policy  45
Sheet Metal  29
Short Courses  20
Short-Term Vocational, Non-Credit  234
Shuttle Service  296
Small Business  30
Small Business Administration  29
Smart Shop  10
Social Science  87–88, 258–259
Social Welfare  34
Sociology  34, 104–105, 257–258
Software  33
Spanish  34, 105–106, 259–260
Conversation  34
Specific Examples of Academic Dishonesty  43
Spreadsheets  31
Statement of Grievance Form  47
Student Access to Education Records  42
Accounts  10
Activities Program  10, 12
Affairs & Activities  10
Called to Active Military Service  18
Classifications  15, 37
Development Services  14
Due Process & Discipline  46
Fees  22
Government  12
Grievance Procedures  46
Right-to-Know Summary Report  52
Services & Programs  13
Summary of Civil & Criminal Penalties for Violation of Federal Copyright Laws  50
Swap books  26
Swimming Pool  8
System Abuse  50
System Operation & Administration, Linux/UNIX  31
Tax Accounting  30
TDD  1, 296
Technical Programs Leading to a Career Upon Completion  29
Technology Music  95–96
Radiologic  103
Theatre  107
Veterinary  109
Tech Support  29
Testing (Assessment)  7
Textbook Accessibility  26
Assistance  25
On Reserve in the Foothill College Library  26
Options  26
Resources  26
Textbooks & Supplies  22, 26
To Schedule an Event  8
Toyon Conference Room  10
Traditional Photography  33
Traffic Violations  46
Training (Assessment)  7
Transcripts  41
Transfer Admission Agreements  56
California State University (to the)  57
Four-Year Colleges & Universities (to)  56
Lower-Division 57
Studies
   CSU GE 34
   IGETC 34
University of California (to the) 57
Upper-Division 57
Transfer Studies
   CSU GE 107–108
   IGETC 108–109
Tutorial Center 8, 16
Two-Dimensional Art 30
Two-Year Career Programs 29

U
Unit Limitation 38
University
   of California
      Breadth General Education Requirements 56
      Davis 56
      Irvine 56
      Merced 56
      Riverside 56
      San Diego 56
      Santa Barbara 56
      Santa Cruz 56
of San Francisco 56
of the Pacific 56
Upper-Division Transfer 57
U.S. Department of Education 8
Use of Photography 52
V
Veterans Assistance & Services 17, 20
Veterinary Technology 8, 29, 34, 109, 265–268
Vice Presidents 279
Video Arts 268–270
Video Design 33
Vineyard Management 34
Vision Statement 6
Viticulture 270–271
Viticulture & Enology 29, 34, 110
Volunteer Center 11
W
Web-Based Multimedia 33
Web Design 33
Web Development 33
Web Publishing: Dreamweaver 33
Wellness Center 8
Winemaking 34
Wireless Networking 32
Withdraw from College 41
Women's History Month 11
Women's Studies 34, 110, 271
Word Processing 31
Work Force Preparation, Non-Credit 234
Writing Centers 16
Written Communication 32
www.assist.org 55–57
www.campusdownloading.com 49
www.copyright.gov 50
www.copyright.gov/help/faq 50
www.fafsa.gov 25
www.foothill.edu
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Campus Information

Parking Regulations

Area & Middlefield Campus Maps

Directions to Foothill College Main Campus

Directions to Foothill College Middlefield Campus

Foothill College Campus Map, Key & Legend

Parking

Accessible Elevators

Accessible Parking

Shuttle Service

TDD-Deaf Access
Campus Information

Parking Regulations
The Foothill-De Anza District Police Department supervises on-campus parking and traffic. The following rules and regulations apply to all students, staff and public. You can find a complete list of college parking and traffic regulations in the Admissions & Records Office and District Police Department, 2103.

- The speed limit in campus parking areas and access ways is 5 miles per hour. The speed limit of 20 miles per hour is posted on all roadways and is strictly enforced.
- Except in areas with 30-minute parking meters, all vehicles must display a valid parking permit to park on campus. Failure to display a permit will result in a citation.
- A parking permit is required from 7 a.m. to 10 p.m. seven days a week—at the Foothill College Main Campus. This requirement is enforced.
- Overnight parking is prohibited.
- Parking permits are not required at Middlefield Campus.
- Day-use parking permits are $2 and are valid for the date of purchase only. Purchase from permit dispensers in all student parking lots. Purchase quarterly or annual permits from the Admissions & Records Office.
- All vehicles must properly display a valid parking permit. Students are authorized to park in marked stalls in student lots only. Students may not park in stalls marked for disabled, staff, vendors, official vehicles or park in roadways, dirt areas or along parking lot curbing. People with disabilities are required to display state-issued identification on their vehicles or, in the event of temporary disabilities, obtain permits from the Disability Resource Center, Room 5801; or call (650) 949-7017.
- Staff parking permits are required for all staff spaces. Staff permits are issued by the District Police Department.
- Special permits will be issued only by the District Police Department. The permit must be displayed on the dashboard or hang on the interior mirror so it can be read from the outside. Special permits are valid only when used within the areas and dates designated on the permit.
- Motor vehicles, bicycles and skateboards are not permitted on the interior portion of campus.
- All vehicles remaining for more than 20 minutes in areas posted for 20-minute maximum will be cited.
- Parking or loitering on campus after 11 p.m. and/or after special activities is prohibited.
- Alcoholic beverages are prohibited on campus.

For more information, call the District Police Department at (650) 949-7313.
Directions to Foothill College Main Campus
Foothill College is located in Los Altos Hills, 10 minutes south of Stanford University and 20 minutes north of San Jose. From Interstate 280, exit El Monte Road and travel west. Visitors must purchase a required campus parking permit for $2. Quarterly and annual permits can be purchased in the Admissions Office. Public bus routes #23 and #52 serve the college approximately every 30 minutes.

Directions to Foothill College Middlefield Campus
The Foothill College Middlefield Campus, 4000 Middlefield Road, is located on Middlefield Road between Charleston and San Antonio roads in Palo Alto.

To travel from the Main Campus to the Middlefield Campus: Drive east on El Monte Road. Turn left on Foothill Expressway. Turn right on San Antonio Road. Turn left on Middlefield Road. Parking at Middlefield Campus is free. The trip is five miles.
Foothill College Campus Map, Key & Legend

<table>
<thead>
<tr>
<th>PROGRAM/DIVISION</th>
<th>LOCATION</th>
<th>PROGRAM/DIVISION</th>
<th>LOCATION</th>
<th>ACCESS INFORMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Senate</td>
<td>1936</td>
<td>Honors Institute</td>
<td>5425</td>
<td></td>
</tr>
<tr>
<td>Adaptive Learning Division</td>
<td>5801</td>
<td>IDEA Lab</td>
<td>1211</td>
<td></td>
</tr>
<tr>
<td>Adaptive Physical Education</td>
<td>2509</td>
<td>Instructional Support Center</td>
<td>3612</td>
<td></td>
</tr>
<tr>
<td>Admissions &amp; Records Office</td>
<td>8101</td>
<td>International Programs</td>
<td>5403</td>
<td></td>
</tr>
<tr>
<td>Altos Room</td>
<td></td>
<td>International Students Office</td>
<td>5922</td>
<td></td>
</tr>
<tr>
<td>Appreciation Hall</td>
<td>1501</td>
<td>Intramural Programs</td>
<td>2149</td>
<td></td>
</tr>
<tr>
<td>Apprenticeship Program</td>
<td>4026</td>
<td>KFJC-FM Radio Station</td>
<td>6202</td>
<td></td>
</tr>
<tr>
<td>Articulation</td>
<td>5401</td>
<td>Krause Center for Innovation</td>
<td>4001</td>
<td></td>
</tr>
<tr>
<td>Associated Students of Foothill College (ASFC)</td>
<td>2011</td>
<td>Language Arts Division</td>
<td>6201</td>
<td></td>
</tr>
<tr>
<td>ASFC Design Center</td>
<td>2017</td>
<td>Language Arts Lab</td>
<td>6308</td>
<td></td>
</tr>
<tr>
<td>ASFC Smart Shop/OwlCard</td>
<td>2016</td>
<td>Library</td>
<td>3501</td>
<td></td>
</tr>
<tr>
<td>Biological &amp; Health Sciences Division</td>
<td>5211</td>
<td>Lohman Theatre</td>
<td>8002</td>
<td></td>
</tr>
<tr>
<td>Bookstore</td>
<td>2301</td>
<td>Matriculation</td>
<td>8301</td>
<td></td>
</tr>
<tr>
<td>Business &amp; Social Sciences Division</td>
<td>3007</td>
<td>Middle College</td>
<td>2152</td>
<td></td>
</tr>
<tr>
<td>Campus Abroad</td>
<td>4016</td>
<td>Occupational Training Institute (OTI)</td>
<td>6408</td>
<td></td>
</tr>
<tr>
<td>Career Center</td>
<td>8329</td>
<td>Observatory</td>
<td>4001</td>
<td></td>
</tr>
<tr>
<td>Chancellor’s Office</td>
<td>D120</td>
<td>Older Adult Program &amp; VAMC</td>
<td>5801</td>
<td></td>
</tr>
<tr>
<td>Chinese Heritage Room</td>
<td>3523</td>
<td>Outreach &amp; Retention Office</td>
<td>8102</td>
<td></td>
</tr>
<tr>
<td>Classified Senate</td>
<td>5027</td>
<td>PSME Center</td>
<td>4213</td>
<td></td>
</tr>
<tr>
<td>Computer Access Center</td>
<td>5710</td>
<td>Pass the Torch</td>
<td>5999</td>
<td></td>
</tr>
<tr>
<td>Computers, Technology &amp; Information Systems Division</td>
<td>4118</td>
<td>Physical Education &amp; Athletics Division</td>
<td>2710</td>
<td></td>
</tr>
<tr>
<td>Cooperative Work Experience Program</td>
<td>4128</td>
<td>Physical Sciences, Mathematics &amp; Engineering Division</td>
<td>4118</td>
<td></td>
</tr>
<tr>
<td>Counseling Division</td>
<td>8301</td>
<td>Placement Testing</td>
<td>8213</td>
<td></td>
</tr>
<tr>
<td>CTIS Computer Center</td>
<td>4001</td>
<td>Police</td>
<td>2103</td>
<td></td>
</tr>
<tr>
<td>Dental Hygiene Clinic</td>
<td>5312</td>
<td>President’s Office</td>
<td>1934</td>
<td></td>
</tr>
<tr>
<td>Dining Room</td>
<td>2201</td>
<td>Psychological Services &amp; Personal Counseling</td>
<td>2120</td>
<td></td>
</tr>
<tr>
<td>Disability Resource Center</td>
<td>5801</td>
<td>Quick Copy</td>
<td>4052</td>
<td></td>
</tr>
<tr>
<td>Distance Learning</td>
<td>3600</td>
<td>Robert C. Smithwick Theatre</td>
<td>1001</td>
<td></td>
</tr>
<tr>
<td>English Writing Center</td>
<td>6305</td>
<td>Service Learning &amp; Volunteer Center</td>
<td>2014</td>
<td></td>
</tr>
<tr>
<td>Entrepreneur Center</td>
<td>5912</td>
<td>Student Accounts</td>
<td>2006</td>
<td></td>
</tr>
<tr>
<td>Environmental Horticulture &amp; Design</td>
<td>8602</td>
<td>Student Activities</td>
<td>2009</td>
<td></td>
</tr>
<tr>
<td>EOPS Computer Lab</td>
<td>8212</td>
<td>Student Affairs</td>
<td>2002</td>
<td></td>
</tr>
<tr>
<td>EOPS Tutoring</td>
<td>3526</td>
<td>Student Success Center</td>
<td>8102</td>
<td></td>
</tr>
<tr>
<td>ESL Writing Center</td>
<td>6308</td>
<td>Temporary Village</td>
<td>5901–5999</td>
<td></td>
</tr>
<tr>
<td>Evening College</td>
<td>1929</td>
<td>Theatre Box Office</td>
<td>8007</td>
<td></td>
</tr>
<tr>
<td>Extended Opportunity Program &amp; Services (EOPS) Office</td>
<td>8202</td>
<td>Toyon Room</td>
<td>2020</td>
<td></td>
</tr>
<tr>
<td>Facilities Rental</td>
<td>2713</td>
<td>Transfer Center</td>
<td>8329</td>
<td></td>
</tr>
<tr>
<td>Faculty Association</td>
<td>D140</td>
<td>Transition to Work</td>
<td>5801</td>
<td></td>
</tr>
<tr>
<td>Financial Aid</td>
<td>8202</td>
<td>Tutorial Center &amp; Programs</td>
<td>3526</td>
<td></td>
</tr>
<tr>
<td>Fine Arts &amp; Communication Division</td>
<td>1701</td>
<td>Veterinary Technology</td>
<td>8504</td>
<td></td>
</tr>
<tr>
<td>Fitness Center</td>
<td>2506</td>
<td>Wellness Center</td>
<td>2506</td>
<td></td>
</tr>
<tr>
<td>Forum</td>
<td>5001</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health Services</td>
<td>2126</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hearthside Lounge</td>
<td>2313</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

Parking
All vehicles must display a parking permit at all times including weekends. Failure to display a permit will result in a citation. Day-use permits are $2 at dispensers located in all student parking lots. Quarterly and annual permits can be purchased at the Admissions Office (Room 8101).

Accessible Elevators
Located at Krause Center for Innovation, Library, Pool Deck, Campus Center, Student Services Building & Life Sciences Building

Accessible Parking
Located in Lots 1, 2-A, 3-A, 4, 4-B, 5, 8 and upper and lower transit stations. You must display the DMV-issued placard. To obtain a temporary disability on-campus permit, call (650) 949-7017.

Shuttle Service
To all points on campus is available for students with physical disabilities. For operating hours, call (650) 949-7017.

TDD-Deaf Access
Call (650) 948-6025 or e-mail DavisBrenda@foothill.edu. For more access information visit the Disability Resource Center (Room 5801); access www.foothill.edu/af; or call (650) 949-7017, voice, (650) 948-6025, TDD

To accommodate construction projects, expect some offices and services to be relocated on campus.