



FOOTHILL COLLEGE

2011-2012 Course Catalog



2011–2012 Academic Calendar

Fall Quarter 2011

June 30	Admission Deadline for Overseas International Student Applicant on F-1 Visa (Separate Application Required)†
Sept. 26	Instruction Begins
Nov. 11	Veterans Day; Campus Closed
Nov. 24–25	Thanksgiving Recess; Campus Closed
Dec. 13–16	Final Examinations
Dec. 19–Jan. 6	Winter Recess

Winter Quarter 2012

Oct. 31	Admission Deadline for Overseas International Student Applicant on F-1 Visa (Separate Application Required)†
Jan. 9	Instruction Begins
Jan. 16	Martin Luther King Jr. Birthday; Campus Closed
Feb. 17	Lincoln's Birthday; Campus Closed
Feb. 20	Washington's Birthday; Campus Closed
March 27–30	Final Examinations
April 2–6	Spring Recess

Spring Quarter 2012

Jan. 31	Admission Deadline for Overseas International Student Applicant on F-1 Visa (Separate Application Required)†
April 9	Instruction Begins
May 28	Memorial Day; Campus Closed
June 26–29	Final Examinations
June 29	Commencement Ceremony; 6 p.m.; Library Quad

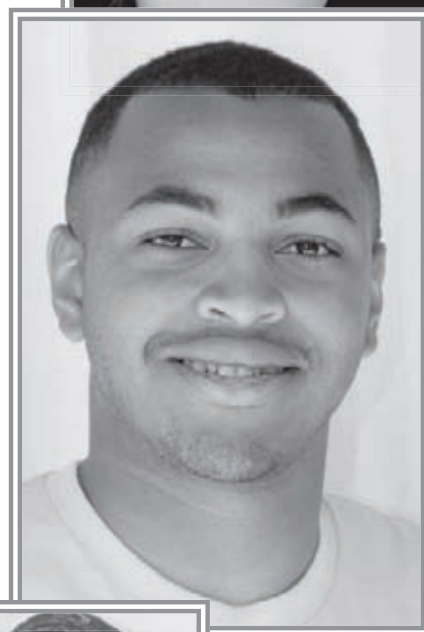
Summer Session 2012

July 2–Aug. 11	Six-Week Session
July 2–Aug. 25	Eight-Week Session

Dates & Deadlines

For additional important deadlines and dates, review the college calendar at www.foothill.edu.

†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.





FOOTHILL COLLEGE

A public two-year college of the
Foothill-De Anza Community College District

Main Campus

12345 El Monte Road
Los Altos Hills, CA 94022-4599
(650) 949-7777

Middlefield Campus

4000 Middlefield Road
Palo Alto, CA 94303-4739
(650) 949-6950

www.foothill.edu

To request this publication in alternative media
such as Braille or large print, call (650) 949-7673.

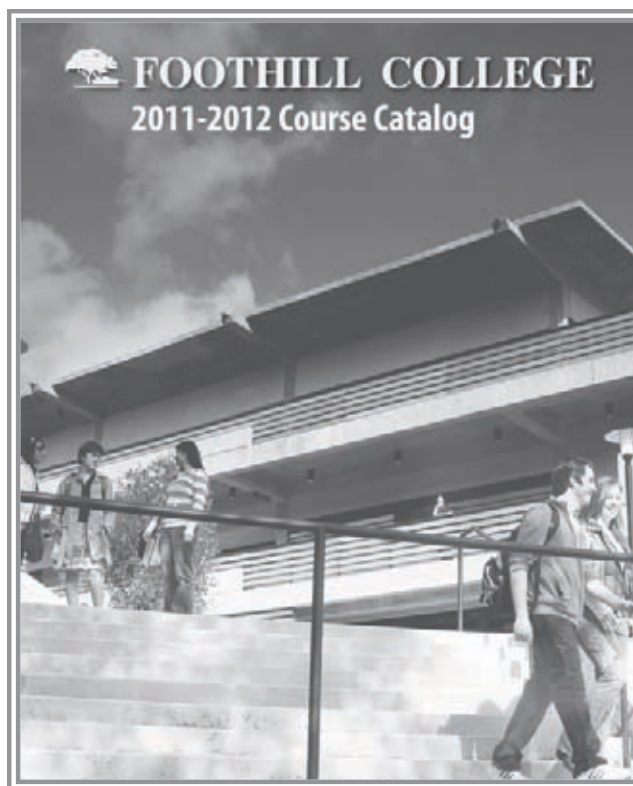
This Catalog Is Your Key to Success

The information you need to succeed as a Foothill College student is in this catalog. The following pages contain a wealth of information about courses, campus resources, student services, program descriptions, degree requirements, and college policies and procedures. Use the catalog to:

- Plan your educational program;
- Review Foothill College policies and procedures;
- Learn about course and degree requirements; and
- Find important dates, phone numbers and locations.

Rules & Policies May Change

The Foothill-De Anza Community College District and Foothill College have made every reasonable effort to determine that information in this catalog is accurate. Changes may result from California legislature statutes or rules and policies adopted by the Foothill-De Anza Community College District Board of Trustees, chancellor or institutional designee. Courses and programs offered, together with other matters contained herein, are subject to change without notice by the administration of the Foothill-De Anza Community College District or Foothill College for reasons related to student enrollment, level of financial support, or for any other reason, at the discretion of the district and college. The district and college further reserve the right to add, amend or repeal any of its rules, regulations, policies and procedures.



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.

At the end of 2012, we'll be opening the Foothill College Physical Sciences & Engineering Center (PSEC), which will serve as the future home of the college's Science Learning Institute, and has already come to be regarded as a leader in developing science, technology, engineering and mathematics, also called STEM, curricula.

At Foothill, 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.



Just scan this QR code with your smart phone QR reader app to see Foothill's mobile website.

 /foothillcollege  /foothillnews

Welcome to the 2011–2012 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. Foothill College is dedicated to serving our

community and providing outstanding educational opportunities to our students. While state budget reductions have presented challenges, Foothill continues to prepare students to transfer to the university of their choice, to offer the highest quality work force degree and certificate programs and offer basic skills instruction to prepare students for college-level work. Under the strong leadership of its faculty, classified staff, administration, board of trustees and chancellor, Foothill is addressing the current challenges through strategic use of limited resources 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. Through the support of our voters who approved the Measure C bond in 2006, Foothill has begun construction on the Physical Sciences and Engineering Complex, a state-of-the-art center for science learning and the advancement of STEM education. With an anticipated opening in January of 2013, we look forward to bringing our students a new level of quality for science learning, and in Foothill continuing its leadership role in preparing students for careers in the sciences.

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!

A handwritten signature in black ink, appearing to read "J.C. Miner".

Judy C. Miner, Ed.D.,
President
Foothill College

Important Campus Phone Numbers

Area Code 650
unless otherwise noted

Emergency 911	Placement Testing 949-7650
Adaptive Learning 949-7332	Prerequisites/ Matriculation Office 949-7512
Admissions & Records 949-7325	Psychological Services 949-7910
Bookstore 949-7305	Student Activities 949-7282
Career Center 949-7229	Theatre Box Office 949-7360
Counseling Appointments 949-7423	Transfer Center 949-7235
Disability Resource Center 949-7017	Tutorial Center 949-7447
District Police (Non-emergency) 949-7313	Veterans Center 949-7001
Evening/Weekend Programs 949-7711	Volunteer Center 949-7634
Extended Opportunity Program & Services (EOPS) 949-7207	■ ■ ■
Facilities Rental 949-7380	Middlefield Campus 949-6950
Financial Aid 949-7245	Admissions 949-6980
Health Services 949-7243	Bookstore 949-6975
Honors Institute 949-7638	Career & College Connections 949-6957
IDEA Lab 949-7137	Counseling 949-6959
Internship Program Office 604-5560	The Hub (Student Services & Computer Lab) 949-6958
Library 949-7392	
Lost & Found 949-7313	
Marketing & Communications 949-7362	

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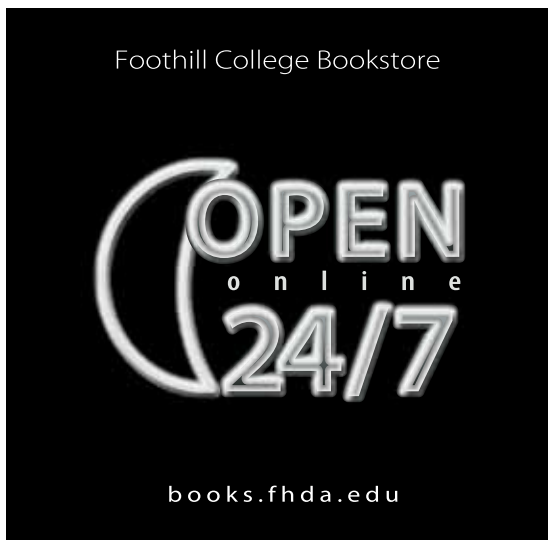
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Your ASFC Student Body Card

OwlCard
get it NOW at
the ASFC Smart Shop

Located in Room 2016 in the Campus Center

Main Campus: Mon–Thurs, 8 a.m.–5 p.m.;
Fri, 8 a.m.–2 p.m.

Middlefield Campus: Mon.–Thurs., Noon–3 p.m.,
4–9:30 p.m.

“My time at Foothill absolutely transformed my life. I found previously untapped skills in leadership and academic discipline, and discovered a true passion for learning. More importantly, I realized what I was capable of—and it was so much more than I thought.”

—Darci Groves, Foothill College Alumna

Currently the editorial manager of user-interface of iTunes at Apple, Inc., Darci Groves tripled majored in psychology, speech communication and multicultural studies at Foothill College and earned multiple Foothill associate degrees. In addition to participating in campus clubs and serving as the elected Foothill student trustee to the Foothill-De Anza Community College District Board of Trustees, she earned Foothill's Certificate of Completion in Leadership & Community Service and transferred to Stanford University. She graduated from Stanford with a bachelor's degree in psychology and a minor in comparative studies in race and ethnicity.

College Profile

Foothill-De Anza Community College District Mission

Foothill College Mission, Vision, Values, Purpose & Institutional Learning Outcomes

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.

Our Institutional Learning Outcomes

An important aspect of upholding institutional integrity is maintaining focus on the Foothill College institution-level learning outcomes (ILOs), also known as the 4-Cs. These are:

- Communication;
- Computation;
- Creative, Critical & Analytical Thinking; and
- Community/Global Consciousness & Responsibility.

Every course at Foothill College addresses at least one of these ILOs. In addition to incorporating and reflecting the synthesis of the cognitive and affective domains of learning, the ILOs provide a framework for the development of breadth and depth in courses and programs, and are the basis of all learning experiences at Foothill College.

Since the Foothill College Academic Senate and Curriculum Committee adopted the institution-level learning outcomes as the general educational student learning outcomes, the college's general education pattern is designed to integrate the 4-Cs across the curriculum. The Foothill College general education (GE) pattern, inclusive of courses in the seven areas of humanities, English, natural sciences, social and behavioral sciences, communication and analytical thinking, United States cultures and communities, and lifelong understanding, supports the college's institution-level learning outcomes. Completion of the GE pattern provides students with the depth and breadth of knowledge, and the skills and abilities that will enable them to be productive lifelong learners, ethical human beings and effective citizens.

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 for Second Language Learners (ESLL), 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, the district opened a temporary campus on El Camino Real in Mountain View. The Los Altos Hills main campus of Foothill College 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
- 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
- Veterans Resource 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 theatre 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 2.7 million Californians—with solid academics, and enabled us to round out our college experiences by pursuing leadership activities, athletics, performing arts and many other programs.”

—Richard L. Henning, Ed.D., Founder,
Foothill College Celebrity Forum Speakers Series

Student Life

Athletics

Campus Center

Campus Clubs

Campus Radio

Cheerleading & Dance Squad

College Hour

Community Service

Cultural Enrichment

Intramural Sports & Recreation Programs

Leadership

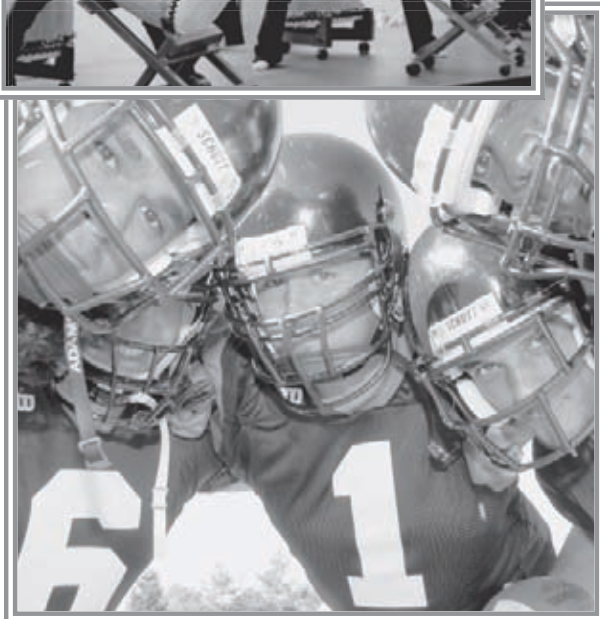
Student Activities Program

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 and swimming. 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 Hearthsides 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)
- Hearthsides Lounge (Room 2313)
- Intramural Recreation Program (Room 2149)
- Middle College Program (Room 2152)
- Psychological Services (Room 2120)
- 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.

Cultural Enrichment

The Student Activities Office works with the Associated Students of Foothill College (ASFC), faculty, staff, academic divisions and community organizations to present lectures, seminars and forums highlighting art, music, drama, politics, athletics, journalism and current issues. The staff also helps students, campus clubs and other organizations plan and coordinate events.

Jewish Heritage Month; Black History Month; Women's History Month; Asian Pacific Islander Month; Latino Heritage Month; and Lesbian, Gay, Bisexual & Transgender 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.

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.



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 the Foothill College 50th Annual
Commencement Ceremony, June 25, 2010.*

Student Services & Programs

Student Development Services

Admission & Placement Testing Services

Campus Support Centers

Personal Support Services

Special Assistance Services

Special Studies & Programs

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 online class schedule *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), an online job board, 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 Development Conference.

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, access www.foothill.edu/career.

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 ESLL 200A);* and all mathematics courses except *NCBS 401A*. Placement testing is offered on a computer only. 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, access www.foothill.edu/counseling/.

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 209, ESLL 200A and NCBS 401A*.

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.

To request test accommodations for a verified disability, call the Disability Resource Center, (650) 949-7017 or e-mail DavisBrenda@foothill.edu.

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

Campus Support Centers

CTIS Computer Center

The CTIS computer lab is open for all students. If you are enrolled in CTIS courses, you receive priority access and printing capabilities. For more information, call (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. For more information, call (650) 949-7680.

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.

Pass the Torch

Pass the Torch is a one-to-one study team program supporting students in the following subjects: English (reading and composition), English for Second Language Learners (ESLL) composition and mathematics. Study teams consist of a team leader and a team member. The leader, who has earned an **A** grade in the subject or has been recommended by his/her instructor, tutors the team member who is currently enrolled in the subject. Teams are matched by their mutually available study times; the pair meets a minimum of two hours each week. Computer and Internet access are available for program participants' use. For more information, call (650) 949-7358 or access www.foothill.edu/services/torch/index.php.

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.

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 acupuncture massage. The office also sponsors speakers, presentations and conferences on health topics throughout the year. 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 registered Foothill students. 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 online class schedule 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. Accommodations for placement testing are available to qualifying students.

For on-campus service and disability accommodation information, call (650) 949-7017. For accommodations for deaf and hearing-impaired students, e-mail Brenda Davis at DavisBrenda@foothill.edu. For community-based program information, call (650) 949-7332.

To request this or any Foothill College 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 Denise Swett, Foothill College ADA/504 coordinator and acting vice president of Student Development & Instruction, in Room 8104 or call (650) 949-7524.

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 Foothill College Veterans Resource Center and Counseling Division assist veterans in planning their educational goals while using their Montgomery G.I. Bill, Veterans Educational Assistance Program or Selected Reserve Educational Assistance Program. The college accepts credit from institutions accredited by one of the six regional accredited associations or follows 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 Resource Center 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 & Work Force Development

The Professional & Work Force 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 work force. The program contracts with employers to train employees on site at their workplace and develops new programs that have the goal of preparing the work force 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, call (650) 949-7797 or access SiliconValleyTraining.fhda.edu.

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. Foothill College has 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 1945. For more information, call (650) 949-7205 or access www.foothill.edu/coop.

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 1908. 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, the Internet 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.

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* 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* at 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.

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.

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. For information about international marketing and activities, call (650) 949-7159 or e-mail 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.

Foothill College offers 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 can be arranged with employers such as Apple Computer, TiVo, SETI, Computer History Museum, Foothill College, De Anza 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, e-mail internships@fhda.edu or call (650) 949-7205.

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.

Veterans Resource Center

The Foothill College Veterans Resource Center (VRC), located in Room 5702, offers veterans and active duty students a welcoming environment to adapt their military skills to civilian life, earn associate degrees or specialty career certificates, and complete university transfer-transfer requirements. The center's goal is to help students achieve their educational and career goals in a supportive environment through academics, camaraderie and wellness.

The VRC provides all military personnel and their families with a convenient, on-campus entry point to access special services, including veterans educational benefits information, financial aid, academic counseling, peer support, mentoring and other services. For more information, visit the VRC, call Veterans Program Specialist Carmela Xuereb at (650) 949-7001, e-mail XuerebCarmela@foothill.edu or access www.foothill.edu/vet/.

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; consumer education; 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, Foothill College Alumna

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

Financial Planning & College Costs

Student Fees

Instructional Materials Fees

Estimated Annual Cost of Attending Foothill College

Examples of Additional Costs

Refunds & Repayments

Financial Aid

State Aid

Other Aid

Textbooks & Supplies

Financial Planning & College Costs



Student Fees

All students pay \$24 per unit^{[1],[2]}. In addition, the non-resident student tuition fee and the foreign student tuition fee is \$135 per unit, for a total of \$159 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, are subject to change. Tuition and fees may be refunded under certain circumstances; the specific refund policy is posted online. Direct questions about tuition and fees to the Admissions & Records Office in Building 8100 or call (650) 949-7325.

[1] Fees are subject to change by California legislative action.

[2] Effective Fall Quarter 2011.

Instructional Materials Fees

In some courses, there will be an instructional materials fee. These fees, detailed in the *online class schedule*, 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.

2011–2012 Cost of Attendance

California Resident (9 months)	Reside At Home No Dependents	All Others
Fees	\$1,170 ^[S]	\$1,170 ^[S]
Books / Supplies	\$1,728	\$1,728
Room / Board	\$4,338	\$10,872
Transportation	\$1,170	\$1,170
Misc. / Personal	\$2,826	\$2,826
Total	\$11,232*	\$17,766*

[S] Based on institutional average
 $15 \text{ units} \times \$24 \text{ per unit} = \$360 + \$30 \text{ Basic Fee} \times 3 \text{ Quarters} = \$1,170$.
 *Excludes cost of textbooks.

Additional Fees

- Materials Fee: amount varies.
- Non-Resident Student Tuition Fee: \$135 per unit per quarter, in addition to the \$24-per-unit enrollment fee.

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. 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.

Federal Pell Grant

Federal Pell Grants are awarded to undergraduates based on financial need. This is free grant aid that ranges from \$555 to \$5,550. Maximum and minimum amounts are subject to change by federal legislative action.

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 offer, it is your responsibility to schedule an interview with the Financial Aid Office for FWS placement assistance.

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. For details, visit the Financial Aid Office (Room 8202).

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 will not exceed 8.5 percent on the unpaid balance and adjusted for new loans each July 1. As of July 1, 2011, the interest rate will be 3.4 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 through the FAFSA application, 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 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.

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 calculated 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 apply for a BOGW each academic year.
- The majority of BOGW recipients obtain eligibility by completing the FAFSA each academic year at www.fafsa.ed.gov.
- Alternatively, some recipients obtain eligibility by downloading the BOGW form online at www.foothill.edu/aid or picking up the form in the Foothill Financial Aid Office (Room 8202).
- Only one application is required per year (July 1–June 30).
- You do not have to be enrolled in a specific number of units to be eligible 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

More than \$100,000 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, 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
e-mail: fhfinancialaidoffice@foothill.edu
website: www.foothill.edu/aid

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 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.

For disability access to textbooks and other instructional materials, e-mail SumSteven@foothill.edu or call (650) 949-7673.



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;

BUY E-BOOKS: The Foothill College Bookstore offers textbooks in electronic form via www.cengagebrain.com. Review available e-book titles, 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

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

Foothill College General Education Pattern

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**Grade Requirements for
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Programs of Study

Foothill College General Education Pattern

The Foothill College general education (GE) pattern is designed to ensure that students meet the four institutional/General Education Learning Outcomes. Also known as the college's 4-Cs, these are:

- 1. COMMUNICATION:** Demonstrate analytical reading and writing skills, including evaluation, synthesis and research; deliver focused and coherent presentations; and demonstrate active, discerning listening and speaking skills in lectures and discussions; and
- 2. COMPUTATION:** Demonstrate complex problem-solving skills, technology skills, computer proficiency and decision analysis (synthesis and evaluation); apply mathematical concepts and reasoning; and demonstrate the ability to analyze and use numerical data; and
- 3. CREATIVE, CRITICAL & ANALYTICAL THINKING:** Judgment and decision making, intellectual curiosity, problem solving through analysis, synthesis and evaluation, creativity, aesthetic awareness, research method, identifying and responding to a variety of learning styles and strategies; and
- 4. COMMUNITY/GLOBAL CONSCIOUSNESS & RESPONSIBILITY:** Social perceptiveness, including respect, empathy, cultural awareness, and sensitivity, citizenship, ethics, interpersonal skills and personal integrity, community service, self-esteem, interest in and pursuit of lifelong learning.

Completion of the Foothill College GE pattern requires that students successfully earn a minimum of 30–35 units from the courses listed on pages 76–77 with at least one course in English, humanities, 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.

It is imperative to note that this pattern is only appropriate for students who are pursuing a Foothill College associate in arts or associate in science degree. Students who plan to earn the A.A.-T or A.S.-T degree (page 30) must complete either the Intersegmental General Education Transfer Curriculum (IGETC) (page 78) or CSU, General Education Breadth (page 79) patterns. Students are strongly advised to meet early and often with a Foothill counselor to determine which pattern will best meet their goals.

The IGETC requirements for transfer from a community college to either the California State University or University of California system are listed on page 78. CSU General Education requirements are listed on page 79.

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 28–28 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:

- Certificate of Achievement
- Certificate of Completion (non-credit)
- Other Division Certificates
 - Career Certificate (non-transcriptable)
 - Certificate of Proficiency (non-transcriptable)
 - Certificate of Specialization (non-transcriptable)
 - Skill Certificate (non-transcriptable)

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.

Other Foothill College divisions 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.

Types of Associate Degrees Offered at Foothill College

While many students complete an associate degree in preparation for immediate entry into the job market, earning an associate degree may also serve as excellent preparation for transfer to a four-year college or university. By earning an associate degree, you indicate to potential employers, transfer institutions and society that you not only have specialized knowledge in a particular area of study. Rather, degree completion also signals that you have gained critical and analytical thinking ability, written and oral communication skills, and are able to consider issues with ethical and global perspective.

You are strongly advised to meet with a Foothill counselor early to decide which degree best suits your academic needs and for assistance in planning your course of study. Requirements for all Foothill College associate degrees include completion of (1) a minimum of 90 quarter units in a defined set of courses; (2) a minimum of 24 units successfully completed at Foothill College; (3) a grade-point average of 2.0 or better in all college courses including Foothill courses; (4) a major or area of emphasis

of at least 27 units in a curriculum approved by the Foothill College Curriculum Committee; and (5) general education coursework. There are significant differences in the general education requirements depending upon the degree you are pursuing; consequently, you are again urged to meet with a Foothill counselor to determine which general education pattern is most appropriate.

The four types of associate degrees offered are:

Associate in Science Degree (A.S. Degree)

The A.S. degree is awarded to students who complete all of the requirements in a major or area of emphasis in the areas of science, technology, engineering or mathematics. This degree also requires completion of the Foothill College General Education requirements. Students who plan to complete this degree and who also intend to transfer to a four-year college or university are advised to meet early and often with a Foothill counselor for assistance in developing an educational plan that satisfies both sets of requirements.

Associate in Art Degree (A.A. Degree)

The A.A. degree is awarded to students who complete all of the requirements in a major or area of emphasis in the liberal arts, social sciences and fields other than science, technology, engineering or mathematics. This degree also requires completion of the Foothill College General Education requirements. Students who plan to complete this degree and who also intend to transfer to a four-year college or university are advised to meet early and often with a Foothill counselor for assistance in developing an educational plan that satisfies both sets of requirements.

Transfer Associate Degrees

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

Associate in Science-Transfer (A.S.-T Degree)

Similar to the A.S. degree, the A.S.-T degree is awarded to students who complete all of the lower-division major preparation requirements for a related major in the areas of science, technology, engineering or mathematics for one or more local CSU campuses. This degree also requires completion of either the CSU General Education/Breadth Requirements or the Intersegmental General Education Breadth Requirements (IGETC). Students who plan to complete this degree and who intend to transfer to a non-local CSU, UC or other college or university are advised to meet early and often with a Foothill counselor for assistance in developing their educational plan.^[1]

Associate in Arts-Transfer (A.A.-T Degree)

Similar to the A.A. degree, the A.A.-T degree is awarded to students who complete all of the lower-division major preparation requirements for a related major in academic areas such as the liberal arts, social sciences and related fields other than science, technology, engineering or mathematics for one or more local CSU campuses. This degree also requires completion of either the CSU General Education/Breadth Requirements or the Intersegmental General Education Breadth Requirements (IGETC). Students who plan to complete this degree and who intend to transfer to a non-local CSU, UC or other college or university are advised to meet early and often with a Foothill counselor for assistance in developing their educational plan.^[1]

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
- Computers, Technology & Information Systems 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
- Veterinary Technology

[1] At the time this catalog was published, no majors for the A.A.-T and A.S.-T degrees had been approved. However, majors are under development. For more information, consult a Foothill counselor and review the Foothill College website.

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. The class schedule lists each program alphabetically, the courses offered each quarter and the current contact phone number.

PROGRAM	COMPLETION AWARD
Accounting	AA, CA
Bookkeeping Specialist	CP
Enrolled Agent Preparation	CP
Financial Accounting	CCC
Payroll Preparation	CP
Tax Accounting	CCC
Tax Specialist	CP
Adaptive Aquatics	CCC
Adaptive Fitness Therapy	AA, CA
American Studies	AA
Anthropology	AA
Archaeology	CP
Cultural Anthropology	CP
Medical Anthropology	CP
Physical Anthropology	CP
Apprenticeship	CA, CS, CCC
Elevator Constructors	CCC
Pipe Trades	CCC
Sheetmetal	CA, CS, CCC
Sound & Communication	CCC

LEGEND	
AA	Complete this program in approximately two years and earn the Associate in Arts Degree. <i>See a counselor and refer to pages 76–77 for requirements.</i>
AS	Complete this program in approximately two years and earn the Associate in Science Degree. <i>See a counselor and refer to pages 76–77 for requirements.</i>
CA	Complete this program and earn the Certificate of Achievement. <i>See division office for requirements.</i>
CC	Complete this program and earn the Certificate of Completion. Non-transcriptable. <i>See division office for requirements.</i>
CCC	Complete this program and earn the Career Certificate. Non-transcriptable. <i>See division office for requirements.</i>
CP	Complete this program and earn the Certificate of Proficiency. Non-transcriptable. <i>See division office for requirements.</i>
CS	Complete this program and earn the Certificate of Specialization. Non-transcriptable. <i>See division office for requirements.</i>
SC	Complete this program and earn the Skills Certificate. Non-transcriptable. <i>See division office for requirements.</i>
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 .	

Degrees & Certificates Offered at Foothill College

PROGRAM	COMPLETION AWARD
Art-General	AA, CA
Ceramics	CS
Painting	CS
Two-Dimensional Art	CS
Art History	AA, CA, CS
Art-Studio	AA, CA
Athletic Injury Care	AS
Biological Sciences	AS
Business Administration	AA
Basic Financial Literacy	CCC
Business Management	CCC
Dispute Resolution	CS
E-Commerce & Electronic Business	CCC
Entrepreneurship	CCC
Marketing	CCC
Small Business	CCC
Business International Studies	AA, CA
International Business Strategy	CCC
Business Technology: Help Desk/Tech Support	AS, CA
A+ Preparation Level II	CA
Business Technology: Office Administration	AS, CA
Accounting/Spreadsheets	CA
Business Communication	SC
Database/SQL	CA
General Office	CA
Internet/Electronic Commerce	CA
Office Computing	CA
Word Processing/Desktop Publishing	CA
Chemistry	AS
Child Development	AA
Child Development Teacher	CA
Early Childhood Education	CA
Inclusion & Children with Special Needs	CS
Infant Toddler Development	CS
Program Supervision & Mentoring	CA
School-Age Child Care	CS
Chinese	AA, CS, CCC
Chinese Conversation	CS

LEGEND

- AA** Complete this program in approximately two years and earn the Associate in Arts Degree. *See a counselor and refer to pages 76–77 for requirements.*
- AS** Complete this program in approximately two years and earn the Associate in Science Degree. *See a counselor and refer to pages 76–77 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.*

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Degrees & Certificates Offered at Foothill College

PROGRAM	COMPLETION AWARD
Communication Studies	AA, CP, CS, CCC
Computer Science	AS
Computer Software Development	AS, CA
Linux/UNIX	SC
Linux/UNIX System Operation & Administration	CA
Microsoft Certified Application Developer #C	SC
Object-Oriented Software Using C++	CA
Object-Oriented Software Using Java	CCC
Creative Writing	AA
Fiction	CS
Genres	CS
Poetry	CS
Reading & Writing: Poetry	CS
Reading & Writing: Fiction	CS
Database Management	AS
Microsoft Certified IT Professional (MCITP)	
Database Administration	SC
Open Source Database	CP
Oracle Database Administration	CA, SC
Oracle Database Developer	CA, SC
Dental Assisting	AS, CA
Dental Hygiene	AS
Diagnostic Medical Sonography	AS, CA
Economics	AA
Emergency Medical Technician	CCC
Engineering	AS
English	AA
American Literature	CS
British Literature	CS
Linguistics	CS
Literary Genres	CS
Multicultural Literature	CS
Written Communication	CS
Enterprise Networking	AS
Network Security	CP
Cisco Academy CCNA	CP
Cisco Academy CCNP	CP
Wireless Networking	CP
Microsoft Certified Desktop Support Technician	CP

LEGEND

- AA** Complete this program in approximately two years and earn the Associate in Arts Degree. *See a counselor and refer to pages 76–77 for requirements.*
- AS** Complete this program in approximately two years and earn the Associate in Science Degree. *See a counselor and refer to pages 76–77 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.*

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Degrees & Certificates Offered at Foothill College

PROGRAM	COMPLETION AWARD
Environmental Horticulture & Design	AS, CA, SC
General Electrician	AS, CCC
General Studies: Science	AS
General Studies: Social Science	AA
Geography	AA
Geographic Information Systems	CA, CCC
Gerontology	CCC
Graphic & Interactive Design	AA, CA
Book Arts	SC
Garment Printing	SC
Graphic Design	SC
Illustration	SC
Motion Graphics	SC
Printmaking	SC
Video Design	SC
Web Design	SC
History	AA
Humanities	AA
Informatics	AS, CA, SC
Interactive & Multimedia Technologies	AS, CA, SC
Web-Based Multimedia	SC
Internet Technology	AS, CA
AJAX	CP
Web-Based Multimedia	SC
Web Publishing: Dreamweaver	CP
Web Development	CP, SC
Electronic Business	SC
Japanese	AA, CCC
Japanese Conversation & Culture	CS
Japanese Tutoring	CCC
Law & Society (Pre-Law)	AA
Leadership & Service	CP
Mathematics	AS
Music General	AA
Music Technology	AA, CA
Pro Tools	CA
Nanoscience	AS, CA
Nanocharacterization	CP
Nanofabrication	CP
Non-Credit Geriatric Home Aide	CC
Non-Credit Job Readiness	CC

LEGEND

- AA** Complete this program in approximately two years and earn the Associate in Arts Degree. *See a counselor and refer to pages 76–77 for requirements.*
- AS** Complete this program in approximately two years and earn the Associate in Science Degree. *See a counselor and refer to pages 76–77 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.



Degrees & Certificates Offered at Foothill College

PROGRAM	COMPLETION AWARD
Non-Credit Mathematical Foundations	CC
Paramedic	AS, CA
Pharmacy Technician	AS, CA
Philosophy	AA
Photography	AA, CA
Digital Imaging	CA
Photo Criticism	SC
Photographic Laboratory Technician	SC
Traditional Photography	CA
Physical Education	AA
Physics	AS
Political Science	AA
Popular Culture	CP
Primary Care Associate	AS, CA
Psychology	AA
Radio Broadcasting	AA, CA, SC
Broadcast Business Sales	SC
Radiologic Technology	AS
Real Estate	AA, CA
Real Estate Salesperson	CCC
Respiratory Therapy	AS
Sociology	AA, CS
Social Welfare	CS
Spanish	AA, CS, CCC
Spanish Conversation	CP
Special Education	AA
Special Education Paraprofessional	CA
Theatre Arts	AA
Theatre Conservatory	CP
Theatre Technology	AA, CA, CCC
Transfer Studies-CSU GE	CA
Transfer Studies-IGETC	CA
Veterinary Technology	AS
Online Veterinary Assisting	CCC
Women's Studies	AA

LEGEND

- AA** Complete this program in approximately two years and earn the Associate in Arts Degree. *See a counselor and refer to pages 76–77 for requirements.*
- AS** Complete this program in approximately two years and earn the Associate in Science Degree. *See a counselor and refer to pages 76–77 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.





“One of the great benefits of Foothill College is the small class sizes, which helped me stay engaged during class time and provided an opportunity for quality interactions with the excellent faculty who clearly cared about my success. I also appreciated the diversity of the student body at Foothill; my classes were enriched by the variety of international students who provided different perspectives and experiences.”

—*Julia Weiland Van Roo, Foothill College Alumna*

Currently the Presidential Management Fellow for the Office of Community Planning & Development at the U.S.

Department of Housing & Urban Development, Julia Weiland Van Roo majored in speech communication at Foothill College and earned two Foothill associate in art degrees, one in speech communication and one in law and society (pre-law) in 2002. She then successfully transferred to the University of California, Berkeley, and earned a bachelor's degree in history and rhetoric in 2004. Later, she entered graduate school and in 2010 earned a juris doctor degree as well as a master of public policy degree—both from Stanford University.

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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 *online class schedule*.

Academic Freedom

Academic freedom encompasses the freedom to study, teach and express ideas and viewpoints, including unpopular and controversial ones, without censorship, political restraint or retribution. Academic freedom allows for the free exchange of ideas in the conscientious pursuit of truth. This freedom exists in all service areas, including but not limited to teaching, librarianship, counseling, coordinating and all faculty-student interactions. Academic freedom is the bedrock principle of all institutions of learning and must be extended to all faculty regardless of their status as full time, part time or probationary.

Faculty members have the principal right and responsibility to determine the content, pedagogy, methods of instruction, the selection, planning and

presentation of course materials, and the fair and equitable methods of assessment in their assignment in accordance with the approved curriculum and course outline and the educational mission of the Foothill-De Anza Community College District, and in accordance with state laws and regulations. These rights and responsibilities include, but are not limited to, the faculty member's choice of textbooks and other course materials, assignments and assessment methods, teaching practices, grading and evaluation of student work, and teaching methods and practices.

Source: Foothill-De Anza Community College District Board Policy 4190 (www.fhda.edu). Approved April 20, 1960; amended Nov. 18, 1996; approved by Foothill College Academic Senate June 1, 2009; approved by De Anza College Academic Senate June 8, 2009; approved by Foothill-De Anza Community College District Board of Trustees Jan. 5, 2010

For more information on Foothill-De Anza policies, access www.fhda.edu/about_us/board/policy.

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 *online class schedule*.

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, class schedule 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 communication 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 posted 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 *online class schedule* and on the college website at www.foothill.edu. The class schedule for the current academic term 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) 949-7524.

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**-mark is the end of the third week of the quarter for Fall, Winter and Spring quarters. Between the fifth and eighth weeks, all drops will receive a **W**-mark. 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 class schedule 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 52–53 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 already received college course credit or advanced placement credit. You must complete 15 units at Foothill College before you are eligible to petition for credit by examination.

The *Petition for Credit by Examination* form is available online at www.foothill.edu/reg/forms.php. You may also obtain petitions from a counselor during the first week of classes. The list below identifies those courses for which credit by examination is currently available. You may not challenge other courses. Prior to submitting a *Petition for Credit by Examination*, you are required to obtain approval from either the appropriate academic division dean or course instructor to verify your eligibility.

Examinations will normally be completed by the end of the second week. Units earned through credit by examination will be identified on your transcript. No course may be challenged during a term after which the class has met for two weeks. Credit by examination is not available during the summer term. If you have previously failed a course, you are not eligible to petition for 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 College for the associate degree. A maximum of 20 units may be earned via credit by examination.

There are special limitations for challenging foreign language courses, courses that depend on laboratory or activity experiences, or sequential courses. 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. This examination will determine whether you have demonstrated essentially the same knowledge and skills as students who successfully complete the traditional course. To obtain credit by examination, you are required to be enrolled in the course. The instructor will inform you about the requirements for successful completion. The examination grade will be entered as the course grade on your permanent record.

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. If you are pursuing credit by examination, you are encouraged to discuss the transfer and graduation implications with a counselor.

The following courses are available for credit by examination: *GEOG 12, 58, 101A, 101B, 101C and 101D.*

College Credit for Advanced Placement (AP) Exams

- The student may earn credit for AP tests with scores of 3, 4 or 5. AP credit can be used to meet IGETC, CSU GE and Foothill A.A. or A.S. general education (GE) and/or major requirements.
- The student is responsible for formally requesting that the College Board send AP exam results to the Foothill College Evaluations Office (12345 El Monte Road, Los Altos Hills, CA 94022-4599) for use on the A.A., A.S. or GE patterns.
- Course credit and units granted at Foothill College may differ from course credit and units granted by a transfer institution.
- Programs noted with an asterisk (*) are not offered at Foothill College.

College Credit for Advanced Placement (AP) Exams					
Exam	Foothill A.A./A.S. (Major and/or GE)	CSU GE	CSU Units Earned toward Transfer	IGETC	UC Units Earned toward Transfer
Art History	Score of 3, 4 or 5 is acceptable for <i>ART 2A</i> credit	Area C1 or C2 3 semester units	6 semester units	Area 3A or 3B 3 semester units	8 quarter/ 5.3 semester units
Art (Studio)	No credit awarded	N/A	3 semester units	N/A	8 quarter/ 5.3 semester units
Biology	No credit awarded	Areas B2 and B3 4 semester units	6 semester units	Area 5B (with lab) 4 semester units	8 quarter/ 5.3 semester units
Calculus AB	Score of 3: <i>MATH 49</i> Score of 4 or 5: <i>MATH 1A</i> 5 quarter units	Area B4 3 semester units	3 semester units	Area 2A 3 semester units	4 quarter/ 2.7 semester units
Calculus BC	Score of 3 or 4: <i>MATH 1A</i> Score of 5: <i>MATH 1A</i> and <i>1B</i> with Math Department approval. 10 quarter units	Area B4 3 semester units	6 semester units	Area 2A 3 semester units	8 quarter/ 5.3 semester units
AP Calculus Exam Limitations			Maximum one exam toward transfer		Maximum credit 8 quarter/ 5.3 semester units for both
Chemistry	Score of 3: Student must take placement test Score of 4: Student may be placed into <i>CHEM 1A</i> . Score of 5: Student may be placed into <i>CHEM 1B</i> without taking <i>CHEM 1A</i> if Chemistry Department approves. Sufficient lab experience required. For placement use only, no units awarded.	Areas B1 and B3 4 semester units	6 semester units	Area 5A (with lab) 4 semester units	8 quarter/ 5.3 semester units

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College Credit for Advanced Placement (AP) Exams *(continued)*

Exam	Foothill A.A./A.S. (Major and/or GE)	CSU			UC Units Earned toward Transfer
		CSU GE	Units Earned toward Transfer	IGETC	
Chinese Language & Culture	Score of 3 or 4: <i>CHIN 4</i> Score of 5: <i>CHIN 5</i> 5 quarter units	Area C2 3 semester units	6 semester units	Areas 3B and 6A 3 semester units	8 quarter/ 5.3 semester units
Computer Science A	No credit awarded	N/A	3 semester units	N/A	2 quarter/ 1.3 semester units
Computer Science AB	No credit awarded	N/A	6 semester units	N/A	4 quarter/ 2.7 semester units
AP Computer Science Exam Limitations	Maximum 6 semester units for both		Maximum one exam toward transfer		Maximum 4 quarter/ 2.7 semester units for both
Economics: Macroeconomics	No credit awarded	Area D2 3 semester units	3 semester units	Area 4B 3 semester units	4 quarter/ 2.7 semester units
Economics: Microeconomics	No credit awarded	Area D2 3 semester units	3 semester units	Area 4B 3 semester units	4 quarter/ 2.7 semester units
English: Language & Composition	Score of 3, 4 or 5: <i>ENGL 1A</i> 5 quarter units	Area A2 3 semester units	6 semester units	Area 1A 3 semester units	8 quarter/ 5.3 semester units
English: Literature & Composition	Score of 3, 4 or 5: <i>ENGL 1A</i> 5 quarter units	Areas A2 and C2 6 semester units	6 semester units	Area 1A or 3B 3 semester units	8 quarter units/ 5.3 semester units
AP English Exam Limitations					8 quarter/ 5.3 semester units maximum for both
*Environmental Science	No credit awarded	Areas B2 and B3 (if completed prior to Fall 2009) OR Areas B1 and B3 (regardless of when completed) 4 semester units	4 semester units	Area 5A (with lab) 3 semester units	4 quarter/ 2.7 semester units
*French Language	Score of 3 or 4: <i>FREN 4</i> Score of 5: <i>FREN 5</i> 5 quarter units	Area C2 3 semester units	6 semester units	Areas 3B and 6A 3 semester units	8 quarter/ 5.3 semester units
*French Literature	Score of 3 or 4: <i>FREN 4</i> Score of 5: <i>FREN 5</i> 5 quarter units	Area C2 (if completed prior to Fall 2009) 3 semester units	6 semester units	Areas 3B and 6A 3 semester units	8 quarter/ 5.3 semester units
*German Language	Score of 3 or 4: <i>GERM 4</i> Score of 5: <i>GERM 5</i> 5 quarter units	Area C2 3 semester units	6 semester units	Areas 3B and 6A 3 semester units	8 quarter/ 5.3 semester units
Government & Politics: Comparative	No credit awarded	Area D8 3 semester units	3 semester units	Area 4H 3 semester units	4 quarter/ 2.7 semester units
Government & Politics: U.S.	No credit awarded	Areas D8 and US 2 3 semester units	3 semester units	Area 4H 3 semester units	4 quarter/ 2.7 semester units
AP Government & Politics Exam Limitations		Does not fulfill U.S. History, Constitution & American Ideals requirement	Student can satisfy the U.S. History, Constitution & American Ideals requirement after transfer		

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College Credit for Advanced Placement (AP) Exams *(continued)*

Exam	Foothill A.A./A.S. (Major and/or GE)	CSU GE	CSU		UC
			Units Earned toward Transfer	IGETC	
History: European	<i>HIST 4A</i> 4 quarter units	Area C2 or D6 3 semester units	6 semester units	Area 3B or 4F 3 semester units	8 quarter/ 5.3 semester units
History: U.S.	<i>HIST 17A</i> 4 quarter units	Area C2 or D6 3 semester units	6 semester units	Area 3B or 4F 3 semester units	8 quarter/ 5.3 semester units
History: World	No credit awarded	Area C2 or D6 3 semester units	6 semester units	Area 3B or 4F 3 semester units	8 quarter/ 5.3 semester units
Human Geography	Score of 4 or 5: <i>GEOG 2</i> 4 quarter units	Area D5 3 semester units	3 semester units	Area 4E 3 semester units	4 quarter/ 5.3 semester units
*Italian Language & Culture		Area C2 3 semester units	6 semester units	Areas 3B and 6A 3 semester units	8 quarter/ 5.3 semester units
Japanese Language & Culture	Score of 3 or 4: <i>JAPN 4</i> Score of 5: <i>JAPN 5</i> 5 quarter units	Area C2 3 semester units	6 semester units	Areas 3B and 6A 3 semester units	8 quarter/ 5.3 semester units
*Latin: Vergil	No credit awarded	Area C2 3 semester units	3 semester units	Areas 3B and 6A 3 semester units	4 quarter/ 2.7 semester units
*Latin: Literature	No credit awarded	Area C2 (if completed prior to Fall 2009) 3 semester units	6 semester units	Areas 3B and 6A 3 semester units	4 quarter/ 2.7 semester units
Music Theory	Score of 3 or 4: <i>MUS 3A</i> Score of 5: <i>MUS 3B</i> 4 quarter units	Area C1 (if completed prior to Fall 2009) 3 semester units	6 semester units	N/A	8 quarter/ 5.3 semester units
Physics B	Score of 3 or 4: <i>PHYS 6</i> (proof of lab required) 5 quarter units Score of 5: <i>PHYS 2A</i> and <i>2B</i> with Physics Department approval (proof of lab required) 10 quarter units	Areas B1 and B3 4 semester units	6 semester units	Area 5A (with lab) 4 semester units	8 quarter/ 5.3 semester units
Physics C: Mechanics	Score of 3 or 4: <i>PHYS 2A</i> with Physics Department approval (proof of lab required) 5 quarter units Score of 5: <i>PHYS 4A</i> with Physics Department approval (proof of lab required) 6 quarter units	Areas B1 and B3 4 semester units	4 semester units	Area 5A (with lab) 3 semester units	4 quarter/ 2.7 semester units
Physics C: Magnetism	Score of 3 or 4: <i>PHYS 2A</i> with Physics Department approval (proof of lab required) 5 quarter units Score of 5: <i>PHYS 4A</i> with Physics Department approval (proof of lab required) 6 quarter units	Areas B1 and B3 4 semester units	4 semester units	Area 5A (with lab) 3 semester units	4 quarter/ 2.7 semester units
AP Physics Exam Limitations			Maximum 4 semester units toward GE and 6 semester units toward transfer		Maximum 8 quarter/ 5.3 semester units for both
Psychology	Score of 5: <i>PSYC 1</i> 5 quarter units	Area D9 3 semester units	3 semester units	Area 4I 3 semester units	4 quarter/ 2.7 semester units

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College Credit for Advanced Placement (AP) Exams *(continued)*

Exam	Foothill A.A./A.S. (Major and/or GE)	CSU GE	CSU		UC
			Units Earned toward Transfer	IGETC	
Spanish Language	Score 3 or 4: <i>SPAN 4</i> Score 5: <i>SPAN 5</i> 5 quarter units	Area C2 3 semester units	6 semester units	Areas 3B and 6A 3 semester units	8 quarter/ 5.3 semester units
Spanish Literature	Score 3 or 4: <i>SPAN 4</i> Score 5: <i>SPAN 5</i> 5 quarter units	Area C2 3 semester units	6 semester units	Areas 3B and 6A 3 semester units	8 quarter/ 5.3 semester units
Statistics	Score 3, 4 or 5: <i>MATH 10</i> 5 quarter units	Area B4 3 semester units	3 semester units	Area 2 3 semester units	4 quarter/ 2.7 semester units

A.A./A.S. DEGREES: Be aware that if an AP exam credit is evaluated as being equivalent to a Foothill course, e.g. *HIST 4A*, the student who receives AP credit and then completes the equivalent Foothill course will have the unit credit for such duplication deducted prior to being awarded the A.A./A.S. degree. Credit by AP exam is noted and listed first on the student's transcript, with units assigned and no grade.

CSU GE: AP exams may be incorporated into the certification of CSU General Education–Breath requirements by any certifying institution. All CSU

campuses will accept the minimum units shown and apply them toward fulfillment of the designated General Education–Breath area if the exam is included as part of a full or subject-area certification. Be aware that individual CSU campuses may choose to grant more units than those specified toward completion of General Education–Breath requirements.

IGETC: AP exams must be used in the IGETC area indicated regardless of where the certifying California Community College's discipline is located.



Foothill College International Baccalaureate Exam Policy

The student may earn credit for successful completion of International Baccalaureate (IB) higher-level subject exams with scores of 5, 6 or 7. IB credit can be used to meet IGETC, CSU GE and Foothill College A.A. or A.S. general education (GE) and/or major requirements as specified in the tables below. The student is responsible for formally requesting that the international baccalaureate organization send exam results to the Foothill College Evaluations Office (12345 El Monte Road, Los Altos Hills, CA 94022-4599 USA). Course units and credits granted at Foothill College may differ from course credit and units granted by a transfer institution.

General Education IB Exam Score Equivalency List		
IB Subject Area	Foothill College General Education Area	Minimum Quarter Units
To earn credit for Foothill GE, the student must earn a score of 5, 6 or 7 on a higher-level IB exam:		
Anthropology HL	Social/Behavioral Sciences	4
Biology HL*	Natural Science	4
Chemistry HL*	Natural Science	4
Geography HL	Social/Behavioral Sciences	4
History (any region) HL	Social/Behavioral Sciences	4
Language A1 (any language) HL	Humanities	4
Language A2 (any language) HL	Humanities	4
Mathematics HL	Communication & Analytical Thinking	4
Theatre HL	Humanities	4
*In addition to a score of 5, 6 or 7 on the higher-level IB exam, the student must have completed the IB diploma program to earn Foothill GE credit in these areas.		
In addition to a score of 5, 6 or 7 on a higher-level IB exam will result in credit for the following Foothill courses:		
Chemistry HL	CHEM 25 or CHEM 30A	4
Physics HL	PHYS 6	4

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 the class schedule and *Course Catalog*.

Grading Scale

Grade definitions are as follows:

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

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.

*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 5 law.



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.

The college does 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.

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.

Petition to Replace Substandard Grade for Foothill College GPA Calculation

When a substandard grade (**D+**, **D**, **D-**, **F**, **NC** or **NP**) was recorded at Foothill, an equivalent course may subsequently be completed at another accredited college or university. The student's academic transcript shall then be annotated to reflect exclusion of the previously recorded coursework with the substandard grade for purposes of grade-point calculation and for all considerations associated with the awarding of certificates and degrees. Replacement with a grade of **Pass/No Pass** is **not** permitted, as it does not improve the student's grade-point average (GPA). It is important to note that all grades remain on the academic transcript, and that some transfer institutions may require recalculation of the GPA to include both the substandard grade and the subsequent grade.

When submitting this petition, the student must attach:

- a copy of his/her transcript and
- either the course outline of record or the course catalog description to confirm course equivalency.^[1]

Be aware that official (sealed) transcripts from the other regionally accredited institution must be submitted to Foothill College Records Office before submitting this petition.

The complete petition form must include student's identification number (SID), name, date, Foothill College course identifier, the date that the Foothill course was completed and initial grade, equivalent course identifier, date repeated and grade earned upon repetition, as well as the valid signatures of the student, discipline faculty member and division dean.

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.

[1] It is strongly recommended that the student consult with the appropriate Foothill division dean to confirm equivalency with discipline faculty before repeating the course.

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

For more than 30 years, Foothill College has provided an honors program that offers an enriched academic, cultural and social experience to intellectually inquisitive and motivated students. The Honors Institute offers students an academic environment that promotes critical thinking, analytical writing, and research skills with an innovative and challenging curriculum. Opportunities for participation at cultural events, conferences and unique honors seminars provide students an intellectual community that encourages and supports them in achieving their goals. The Honors Institute offers stimulating academic opportunities to a previously underserved population, prepares talented and ambitious students for the challenges of higher education, and supports successful transfer to either baccalaureate-granting colleges and universities or expanded career opportunities.

A fundamental goal of the program is to promote self-confidence and increase self-esteem in students who need the encouragement to excel as well as the courage to continue their education and fulfill their goals. The Honors institute recruits and cultivates honors students, nurturing and encouraging those students who might never have considered themselves capable of success in an enhanced learning environment or transferring to a selective university. Rather than presenting itself as a selective entity, the Honors Institute welcomes all students and especially encourages students remediating through basic skills courses to strive toward participation in the honors program.

Foothill College is one of a handful of community colleges in Northern California that is approved for the UCLA Transfer Alliance Program (TAP), which offers students preferred admission to the UCLA College of Letters & Science (80-percent or higher admission rate). To be eligible, students are required to complete the honors scholar program, which consists of completing a minimum of seven honors courses/minimum of 23 honors units. Regardless of their interest in transferring to UCLA, all honors students are encouraged to complete the honors scholar program, which awards students with the permanent transcript notation of "Honors Scholar" and offers additional transfer admission and scholarship opportunities.



Foothill College honors students are typically leaders at the annual Bay Area Community College Honors Research Symposium (held at Stanford University and UC Berkeley). Foothill honors faculty work closely with honors students to mentor students in their research. Here, honors students present their research to hundreds of other honors students. Other honors program benefits include specialized honors counseling, early registration, specialized workshops, free tickets to attend local lectures with internationally renowned writers, scientists, artists and politicians, transfer admission guarantees (TAGs), and more.

Minimum requirements for participation include completion of *ENGL 1A* with a grade of **B** or better, 10 quarter units, and a 3.3+ GPA. Students without any college experience may apply if they have a high school GPA of 3.5 and completion of *ENGL 1A*. Students who are placed in Foothill's *ENGL 1AH: Honors English Composition* course via Foothill College placement tests are also eligible.

Students who are not yet eligible for the program based upon the GPA requirements are welcome to participate in the Try an Honors Course Program, which offers students who have completed *ENGL 1A* or *ESLL 26* with a grade of **B** or better an opportunity to enroll in an honors course (pending space availability).

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 *online class schedule*.

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 93380), 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 or e-mail DavisBrenda@foothill.edu. 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 Acting Vice President of Student Development & Instruction Denise Swett, who is the institution's designated ADA/504 coordinator, by visiting Room 8104 or calling (650) 949-7524.

Nondiscrimination 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 Acting Vice President of Student Development & Instruction Denise Swett, the institution's ADA/504 coordinator, by visiting Room 8104 or calling (650) 949-7524.

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 étnico, edad, sexo, religión, orientación sexual, estado civil, o impedimento físico or 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 Student Affairs & Activities Dean Patricia Hyland in Room 2002 or call (650) 949-7241.

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 Student Affairs & Activities Dean Patricia Hyland in Room 2002 or call (650) 949-7241.

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 Acting Vice President of Student Development & Instruction Denise Swett at (650) 949-7524 or visit Room 8104.

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* and online at www.foothill.edu.

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.

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 *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 areas. In addition, designated areas for smoking will be clearly marked. 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. –Amended July 12, 2010. (*FHDA Board Policy 3217*).



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.



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 Conduct & Due Process

I. Overview & Definitions

In developing responsible student conduct, disciplinary proceedings play a role substantially secondary to example, counseling, guidance and admonition. At the same time, educational institutions have a duty and the corollary disciplinary powers to protect their educational purpose through the settings of standards of scholarship and conduct for the students who attend them and through the regulation of the use of institutional facilities. The purpose of these procedures is to provide a prompt and equitable means to address violations of the *Student Code of Conduct*, as set forth in FHDA *Administrative Procedures (AP) 5510* and *5520*, which guarantees the student or students involved the due process rights entitled to them by state and federal constitutional protections. These procedures will be used in a fair and equitable manner, and not for purposes of retaliation. They are not intended to substitute for criminal or civil proceeds that may be initiated by other agencies.

Foothill and De Anza colleges consider the following principles essential to their educational missions and community life:

1. Mutual respect between students, faculty and staff;
2. Pursuit of studies with honesty and integrity;
3. Respect for college and personal property; and
4. Compliance with all rules and regulations.

These standards are intended to promote responsible student conduct and fair play.

II. Definitions

COLLEGE: Foothill College and its respective programs.

DISTRICT: The Foothill-De Anza (FHDA) Community College District.

INSTRUCTOR: Any academic employee of the district in whose class a student subject to discipline is enrolled, or counselor who is providing or has provided services to the student, or other academic employee who has responsibility for the student's educational program.

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

STUDENT: Any person currently enrolled as a student at any college or in any program offered by the district.

STUDENT DISCIPLINE OFFICER: The official designated by the college to be responsible for reviewing and processing student discipline matters.

III. Student Code of Conduct & Grounds for Disciplinary Action

Students shall be subject to college discipline as outlined in *AP 5510* for any of the following misconduct that occurs at any time on campus or at any off-campus facility, including Internet-based courses held on the World Wide Web, or college-approved or college-sponsored functions:

1. Academic dishonesty, such as cheating, plagiarism (including plagiarism included in student publications), or knowingly furnishing false information to the colleges, or district;
2. Unauthorized preparation, giving, selling, transfer, distribution or publication, for any commercial purpose, of any contemporaneous recording of an academic presentation in a classroom or equivalent site of instruction, including but not limited to handwritten or typewritten class notes, except as permitted by any district policy or administrative procedure;
3. Dishonesty, forgery, alteration or misuse of college or district documents, records or identification;
4. Obstruction or disruption of teaching, research, administration, disciplinary procedures, or other college or district activities, including its public service functions, or of other authorized activities;
5. Physical or verbal abuse of any person or conduct which threatens or endangers the health or safety of any such person;
6. Committing or attempting to commit robbery or extortion;
7. Causing or attempting to cause damage to college or district property or to private property on campus;
8. Stealing or attempting to steal college or district property or private property on campus, or knowingly receiving stolen college or district property or private property on campus;
9. Willful misconduct that results in injury or death to a student or to college or district personnel or which results in cutting, defacing, or other injury to any real or personal property owned by the college or district or on the campus;
10. Unauthorized entry to or use of college or district facilities;
11. Violation of college or district policies or of campus regulations, including those concerning registration of student organizations, use of college or district facilities, or the time, place and manner of public expression;
12. Unlawful possession, use, sale, offer to sell, or furnishing or being under the influence of, any controlled substance as listed in *California Health & Safety Code Section 11053* et seq., an alcoholic beverage, or an intoxicant of any kind; or unlawful possession

of, or offering, arranging or negotiating the sale of any drug paraphernalia, as defined in *California Health & Safety Code Section 11014.5*;

13. Use, possession, or sale of any firearm, knife, explosive, or other object that could be classified as a weapon (unless the student has specific authorization from a college or district official);
14. Disruptive behavior, willful disobedience, habitual profanity or vulgarity, or the open and persistent defiance of authority, or persistent abuse of college or district personnel;
15. Gambling on college or district property;
16. Hazing or any act that injures, degrades, or disgraces or tends to injure, degrade, or disgrace any fellow student or other persons;
17. Disorderly conduct or lewd, indecent or obscene behavior, conduct or expression on district-owned or district-controlled property, or at district-sponsored or district-supervised functions;
18. Willful or persistent smoking in any area where smoking has been prohibited by law or by regulation of the college or district;
19. Theft or abuse of computer time, including but not limited to:
 - a. unauthorized entry into a file, to use, read or change the contents or for any other purpose;
 - b. unauthorized transfer of a file;
 - c. unauthorized use of another person's identification and password;
 - d. use of computing facilities to interfere with the work of another student, faculty member or college official;
 - e. use of computing facilities to send obscene or abusive messages, or to defame or intentionally harm other persons;
 - f. use of computing facilities to interfere with normal operation of the college computing system;
 - g. use of computing facilities for student's personal benefit;
20. Committing sexual harassment as defined by law or as set forth in *Board Policy (BP) 4640*;
21. Engaging in harassing or discriminatory behavior based on race, gender, religion, age, national origin, disability, or any other status protected by law;
22. Engaging in expression which is obscene, libelous or slanderous, or which so incites students as to create a clear and present danger of the commission of unlawful acts on college or district premises, or the violation of lawful college or district regulations, or the substantial disruption of the orderly operation of the college or district;
23. Persistent, serious misconduct where other means of correction have failed to bring about proper conduct.

IV. Types of Disciplinary Action

The following are the usual types of discipline the college imposes for violations of its rule or California laws. The following topics are listed in alphabetical order.

ADMONITION: An administrative, verbal warning to the student to cease and desist from conduct determined to violate the Student Code of Conduct.

DAY: Day(s) during which the district is in session and regular classes are held, excluding Saturdays and Sundays.

DISCIPLINARY PROBATION: Exclusion from participation in privileges or extracurricular activities set forth in the notice of disciplinary probation for a specified period of time.

EXPULSION: Exclusion of the student by action of the FHDA Community College District Board of Trustees from all colleges in the district for one or more terms, or permanently.

REMOVAL FROM CLASS: Exclusion of the student by an instructor for the day of the removal and the next class meeting.

RESTITUTION: Financial liability for damage to or misappropriation of property. Restitution may take the form of appropriate service to repair or otherwise compensate for damages.

SUMMARY SUSPENSION: Any student who has willfully disrupted the orderly operation of the campus may be promptly suspended pending a hearing, where such immediate suspension is required in order to protect lives or property and to ensure the maintenance of order, provided, however, that a reasonable opportunity must be afforded the suspended person for hearing within 10 days. In all other cases, where disciplinary action is to be taken in response to willful disruption of the orderly operation of the campus, discipline shall be imposed only after a prompt hearing by a campus body resulting in a finding that the student willfully disrupted the orderly operation of the campus.

SUSPENSION: Exclusion of the student for good cause from one or more classes for a period of up to 10 days of instruction, or the remainder of the school term, or from all classes and activities for one or more terms. The suspended student is prohibited from being enrolled in any other college in the district for the period of suspension.

WITHDRAWAL OF CONSENT TO REMAIN ON CAMPUS: Withdrawal of consent by the student discipline officer for any person to remain on campus in accordance with California Penal Code Section 626.4 where the student

discipline officer has reasonable cause to believe that such person has willfully disrupted the orderly operation of the campus.

WRITTEN WARNING: Written notice to the student that continuation or repetition of specific conduct found wrongful within a period of time stated in the warning, may be cause for more severe disciplinary action. Written reprimands may become part of a student's permanent record at the college.

V. Discipline & Due Process Procedures at Foothill College

Except in cases where immediate discipline pending a hearing is authorized, the following procedures will apply before disciplinary action is taken to suspend or expel a student. The student discipline officer will determine if there are sufficient grounds to warrant discipline. If the student discipline officer determines sufficient grounds exist to warrant discipline, the student will be provided with written notice of that determination. The written notice will include the following:

1. The specific section of the Student Code of Conduct that the student is charged with violating;
2. A short statement of the facts supporting the accusation; and
3. The nature of the discipline that is being considered.

The following topics are listed in chronological order.

TIME LIMITS: The notice must be provided to the student within 10 days of the date on which the conduct took place; in the case of continuous, repeated or ongoing conduct, the notice must be provided within 10 days of the date on which conduct occurred which led to the decision to take disciplinary action.

PRE-HEARING MEETING: If the student chooses to meet with the student discipline officer, the meeting must occur no sooner than 10 days after the notice is provided. At the meeting, the student must again be told the facts leading to the accusation, and must be given an opportunity to respond verbally or in writing to the accusation.

SCHEDULE OF HEARING: The formal hearing shall be scheduled within 10 days after the pre-hearing meeting with the student discipline officer.

CAMPUS DISCIPLINARY HEARING BOARD: This board shall be comprised of members of the faculty and administration. The student discipline officer and the president of the Academic Senate shall each, at the beginning of the academic year, establish a list of persons who will serve on student disciplinary hearing panels. The student discipline officer shall appoint the hearing panel from the names on these lists. The administrator on the hearing panel shall serve as chair. However, no administrator or faculty member who has any personal

involvement in the matter to be decided, who is a necessary witness, or who could not otherwise act in a neutral manner shall serve on a hearing panel.

CONDUCT OF THE HEARING: The members of the hearing panel shall be provided with a copy of the accusation against the student and any written response provided by the student before the hearing begins. The student discipline officer shall present the facts supporting the accusation. The student discipline officer and the student 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 hearing panel determines to proceed otherwise, the student discipline officer and the student shall each be permitted to make an opening statement. Thereafter, the student discipline officer shall make the first presentation, followed by the student. The student discipline officer may present rebuttal evidence after the student completes his or her evidence. The burden shall be on the student discipline officer to prove by substantial evidence that the facts alleged are true. The student may represent him or herself, and may also have the right to be represented by a person of his or her choice. An attorney shall not represent the student unless, in the judgment of the hearing panel, complex legal issues are involved. If the student wishes to be represented by an attorney, a request must be presented not less than five days prior to the date of the hearing. If the student is permitted to be represented by an attorney, the student discipline officer may request legal assistance. The hearing panel may also request legal assistance; any legal advisor provided to the panel 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 the student requests that it be open to the public. Any such request must be made no less than five 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 panel agree to the contrary. The district shall record the hearing 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 hearing panel chair shall, at the beginning of the hearing, ask people present to identify themselves by name, and thereafter shall ask witnesses to identify themselves by name. Tape recording shall remain in the custody of the district at all times, unless released to a professional transcribing service. The student may request a copy of the tape recording. All testimony shall be taken under oath; the hearing panel chair shall administer the oath. 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 is considered “unavailable”. Within 10 days following the close of the hearing, the hearing panel shall prepare and forward to the student discipline officer a written recommendation. The recommendation shall include specific factual findings regarding the accusation, and shall include specific conclusions regarding whether any specific section of the standards of student conduct were violated. The decision shall also include a specific recommendation regarding the disciplinary action to be imposed, 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 accusation, the written response, if any, of the student, and the oral and written evidence produced at the hearing. The student discipline officer will forward the recommendation to the president.

IMMEDIATE SUMMARY SUSPENSION: The president may order immediate interim suspension pending a hearing of a student where he/she concludes that immediate suspension is required to protect lives or property and to ensure the maintenance of order, provided that a

reasonable opportunity is afforded the suspended person for a hearing within 10 days. This procedure complies with *Education Code Section 66017*.

REMOVAL FROM CLASS: Any instructor may order a student removed from his/her class for the day of the removal and the next class meeting. The instructor shall immediately report the removal to the student discipline officer. The student discipline officer shall arrange for a conference between the student and the instructor regarding the removal. If the instructor or the student requests, the student discipline officer shall attend the conference. The student shall not be returned to the class during the period of the removal without the concurrence of the instructor. Nothing herein will prevent the student discipline officer from recommending further disciplinary procedures in accordance with these procedures based on the facts that led to the removal. This procedure complies with *Education Code Section 76032*.

WITHDRAWAL OF CONSENT TO REMAIN ON CAMPUS: Also review *Penal Code Section 626.4*. The student discipline officer may notify any person for whom there is a reasonable belief that the person has willfully disrupted the orderly operation of the campus that consent to

remain on campus has been withdrawn. If the person is on campus at the time, he/she must promptly leave or be escorted off campus. If the student discipline officer withdraws consent, a written report must be promptly made to the college president and the district police. The person from whom consent has been withdrawn may submit a written request for a hearing on the withdrawal within the period of the withdrawal. The request shall be granted not later than 10 days from the date of receipt of the request. The hearing will be conducted in accordance with the provisions of this procedure relating to interim suspensions. In no case shall consent be withdrawn for longer than 10 days from the date upon which consent was initially withdrawn. Any person as to whom consent to remain on campus has been withdrawn who knowingly re-enters the campus during the period in which consent has been withdrawn, except to come for a meeting or hearing, is subject to arrest.

PRESIDENT'S DECISION FOR SUSPENSION: Within 10 days following receipt of the hearing panel's recommended decision, the college president shall render a written decision. The college president may accept, modify or reject the findings, decisions and recommendations of the hearing panel. If the president modifies or rejects the hearing panel's decision, the college president shall review the record of the hearing, and shall prepare a new written decision that contains specific factual findings and conclusions. Written notice of the college president's decision shall be provided to the student. The notice will include the right of the student to request an appeal of the decision within 30 days of receipt of the decision. The college president will review the appeal and any additional information provided by the student, and render a decision on the appeal. The decision of the college president shall be final. The college president shall notify the district chancellor of the decision to suspend a student.

PRESIDENT'S DECISION FOR EXPULSION: Within 10 days following receipt of the hearing panel's recommended decision, the president shall render a written recommended decision to the FHDA board of trustees. The college president may accept, modify or reject the findings, decisions and recommendations of the hearing panel. If the college president modifies or rejects the hearing panel's decision, the college president shall review the record of the hearing, and shall prepare a new written decision that contains specific factual findings and conclusions. The college president's recommendation shall be forwarded to the FHDA board of trustees.

BOARD OF TRUSTEES DECISION: Once received, the college president's recommendation will be placed on the agenda of the next regularly scheduled district board meeting. The district board of trustees shall determine whether to expel

a student for cause following hearing before the board. The board shall consider an expulsion recommendation in closed session, unless the student has requested that the matter be considered in a public meeting in accordance with these procedures (*Education Code Section 72122*). The student shall be notified in writing, by registered or certified mail or by personal service, at least three days prior to the meeting, of the date, time and place of the board's meeting. The student may, within 48 hours after receipt of the notice, request that the hearing be held as a public meeting. Even if a student has requested that the board consider an expulsion recommendation in a public meeting, the board will hold any discussion that might be in conflict with the right to privacy of any student other than the student requesting the public meeting in closed session. The board may accept, modify or reject the findings, decisions and recommendations of the college president and/or the hearing panel. If the board modifies or rejects the decision, the board shall review the record of the hearing, and shall prepare a new written decision that contains specific factual findings and conclusions. The decision of the board shall be final. The final action of the board on the expulsion shall be taken at a public meeting, and the result of the action shall be a public record of the district.

For More Information

The Foothill College Judicial Affairs Office manages liability issues that arise on the Foothill College campus. Patricia Hyland, dean of Student Affairs & Activities, is the Foothill College grievance officer who oversees discipline and due process. To schedule an appointment with Patricia Hyland, get answers to your questions, obtain reference material or discuss an issue, call (650) 949-7241.

Various policies and college groups work to assure students' due process. Such groups and policies include:

- **MULTICULTURAL RELATIONS OFFICE:** For more information, e-mail or call Foothill Student Affairs & Activities Dean Patricia Hyland at HylandPat@foothill.edu or (650) 949-7389;
- **ASFC STUDENT RIGHTS ADVOCATE:** For more information, e-mail or call the Associated Students of Foothill College President at asfcpresident@foothill.edu or (650) 949-7062.
- **OBTAINING COPIES OF POLICIES:** All board and administrative policies are available for review during business hours in the Foothill-De Anza Community College District Chancellor's Office located on the Foothill College campus. These policies are also available online at www.fhda.edu.
- In addition, reference resources are available online at www.foothill.edu/services/studentright.php under *Student's Right to Know*; in print in the *Foothill College*

Student Grievance Procedures brochure that is available at the Student Affairs & Activities Office (Room 2002), or call (650) 949-7241.

For Further Reference

- *Foothill-De Anza Community College District Board of Trustees Board Policy 5510—Student Code of Conduct;*
- *Foothill-De Anza Community College District Board of Trustees Board Policy 5520—Student Due Process & Discipline;*
- *Foothill-De Anza Community College District Board of Trustees Board Policy 5530—Student Grievances;*
- *Foothill-De Anza Community College District Board of Trustees Board Policy 5500—Student Rights & Responsibilities; and*
- *14th Amendment of the U.S. Constitution as interpreted by Tinker v. Des Moines Independent School District, U. S. Supreme Court, 1969, 21 LIED 2d 731.*

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 shall not be represented by an attorney unless, in the judgment of the grievance hearing committee, complex legal issues are involved. If a party wishes to be represented by an attorney, a request must be presented not less than 10 work days prior to the date of the hearing. If one party is permitted to be represented by an attorney, any other party shall have the right to be represented by an attorney. The hearing committee may 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.

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.

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 statutes. 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.

Code of Conduct for *etudes*[™] Internet-Based Courses

As a student at Foothill College, your conduct in the classroom and online (Internet classes) will be expected to conform to those acceptable standards for all students as described in this publication. Unacceptable behavior includes, but is not limited to the following:

- Use of threatening, harassing, sexually explicit language or discriminatory language or conduct that violates state and federal law and the Foothill-De Anza Community College District policy on sexual harassment or discrimination;
- Unauthorized posting or transmitting sexually explicit images or other content that is deemed by *etudes*[™], the licensee, or any administrator, supervisor or instructor of a course published utilizing *etudes*[™] or other online software to be offensive;
- Conduct that constitutes fraudulent behavior as enumerated in state and federal statutes;
- Disruptive behavior online or off-line;
- Vandalism, or any other violation of FHDA Community College District Board Policy. Particular attention should be given to college policy on academic dishonesty, which includes plagiarism or otherwise representing others' work as your own.

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 *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 *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:

Crime / Year	2010	2009	2008
Aggravated Assault	0	0	1
Arson	0	0	0
Burglary	11	2	6
Homicide	0	0	0
Vehicle Theft	0	1	3
Rape	0	0	0
Robbery	0	0	0
Arrests / Year	2010	2009	2008
Alcohol Violations	0	0	0
Drug Violations	1	3	3
Warrants/Other	2	0	0

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 2007.^[2]

Students completing A.A./A.S./Certificate: 46.00 percent
 Students who transferred out:^[3] 17.54 percent
 Total completers/transfers:^[4] 63.54 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 1944.

- [2] 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.
- [3] 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.
- [4] 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.

William Yee completed his general education requirements at Foothill College and transferred to Santa Clara University. His most recent—and last—job was at Yahoo.

Requirements

A.A. & A.S. Degree Graduation Requirements

General Education Reciprocity

Petition for Graduation

Catalog Rights/Requirements for Graduation

Continuous Enrollment

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Online Degrees

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Course Numbering System

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Four-Year Institution Requirements

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Preparation for Transfer to Four-Year Colleges & Universities

Transfer to the California State University (CSU)

Transfer to the University of California (UC)

Priority Application Filing Period

A.A./A.S. Degree & General Education Requirements 2011–2012

Intersegmental General Education Transfer Curriculum (IGETC)

California State University General Education Breadth Requirements

Majors & Certificate Requirements

Requirements

Associate in Arts & Associate in Science Degree Graduation Requirements

Requirements for the Associate in Arts (A.A.) and Associate in Science (A.S.) degrees are listed on pages 76–77 and include completion of all the following:

- A minimum of 90 units in prescribed courses;
- A minimum of 24 units completed 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 76–78. 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 17, 105* or *108*; 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 Chabot, De Anza, Evergreen Valley, Gavilan, Las Positas, Mission, Ohlone, San Jose City and West Valley colleges.

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 A.A./A.S. general education certification may be submitted to the Evaluations Office in Room 8301.

Petition for Graduation

Upon completion of required coursework, you may request to receive the A.A./A.A.-T/A.S./A.S.-T degree from Foothill College. You must complete a 30-minute petition for graduation consultation with a Foothill counselor and all transcripts of your college coursework at Foothill and/or other schools must be on file at Foothill College. 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 by accessing www.foothill.edu/counseling.

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**-mark 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 communication, 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

Per Title 5 regulations, certificates of achievement are noted on the student's transcript. However, certificates of completion, proficiency, specialization, skills, and career are not reflected 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:

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

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.

Individual course descriptions identify course transferability to UC and CSU campuses; however, since transferability is subject to change, students should verify transferability at www.assist.org.

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.

Note: Courses considered transferable may not necessarily satisfy specific requirements at all four-year institutions. While students are strongly encouraged to develop an educational plan with a counselor, the final responsibility for proper course selection rests with the individual student.

*Basic Skills: Limitations & Waivers

Enrollment in basic skills courses is limited to no more than 45 quarter units at Foothill College. ESLL 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 page 79). IGETC Certification for CSU or UC requires full certification of Areas 1 through 5. (See page 78). 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 consult with a counselor 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 every UC and most CSU campuses, as well as 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
- Website of the specific college of interest

Assist Web Page

As the official statewide repository for articulation information, Assist (www.assist.org) is the primary site for students to find specific Foothill College courses that fulfill general education and/or major preparation requirements at UC and CSU campuses. Listings of course equivalencies assist students in selecting appropriate courses to prepare for transfer. Information about exploring majors, selection criteria for impacted and selective programs/majors, transfer credit limitations and important links to UC and CSU websites are also available at www.assist.org. Although, Assist is an excellent tool, it is recommended that students apply Assist information to their education plan in conjunction with a Foothill counselor.

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* | ■ UC Davis |
| ■ CSU Monterey Bay | ■ UC Irvine |
| ■ CSU East Bay | ■ UC Merced |
| ■ Golden Gate University | ■ UC Riverside |
| ■ Menlo College | ■ UC San Diego |
| ■ National Hispanic University | ■ UC Santa Barbara |
| ■ Notre Dame de Namur University | ■ UC Santa Cruz |
| ■ Palo Alto University | ■ University of San Francisco |
| ■ Santa Clara University | ■ 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 1961).

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 (CSU)

The following information is an abstract from the CSUMentor website (posted April 2011). Foothill College is not responsible for any changes CSU may make to this information. For complete information and updates, access www.csumentor.edu/planning/transfer/.

For students interested in transfer to one of the 23 campuses of the CSU, admission eligibility is based on transferable units completed. You are considered a transfer student if you complete college units after the summer following graduation from high school. Admission offices at the 23 CSU campuses use a common set of factors to make admission decisions for both classes of transfer students. All campuses have higher standards for out-of-state students and international students. Some campuses have higher standards for particular majors. Finally, some campuses have higher standards for all applicants. Some campuses give preference in admission to students who reside or have completed an identified number of units at institutions in their local area. For detailed information, access www.calstate.edu/sas/publications/.

Lower-Division Transfer Admission

Many CSU campuses do not accept lower-division transfers. Be sure to check with the campus if you are considering transfer as a lower-division student. Students who have completed fewer than 60 transferable semester units (90 quarter units) are considered lower-division transfer students. You are eligible for admissions consideration as a lower-division transfer if you:

- Have a college grade-point average of 2.0 or better in all transferable college units completed;
- Are in good standing at the last college or university attended; i.e., you are eligible to re-enroll;
- Meet the admission requirements for a first-time freshman or have successfully completed the necessary courses to make up the deficiencies you had in high school if you did not complete the 15-unit pattern of college preparatory subjects; and
- Meet the eligibility index required of a freshman.

Upper-Division Transfer Admission

Students who have completed 60 or more transferable semester units (90 quarter units) are considered upper-division transfer students. You are eligible for admission if you:

- Have an overall college grade-point average of 2.0 or better (2.4 for California nonresidents) in all transferable college units attempted;
- Are in good standing at the last college or university attended; i.e., you are eligible to re-enroll; and
- Prior to transfer, you complete at least 30 semester units (45 quarter units) of general education coursework with a grade of C or better. The 30 (45) units must include all of the general education requirements in English composition, oral communication, critical thinking and at least one course of 3 semester units (4 quarter units) in college-level mathematics.

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 (UC)

The University of California (UC) campuses at Berkeley, Davis, Irvine, Los Angeles, Merced, Riverside, San Diego, Santa Barbara and Santa Cruz all share the same minimum admission requirements; however, each campus is unique. The academic programs offered, the size of the student body and the location are just a few of the factors that contribute to the individual character of each campus. Entrance requirements may vary, as well. Although some campuses are able to admit all eligible transfer applicants, others can accommodate only a limited number of transfer students. Academic preparation and grade-point average (GPA) are used by the competitive campuses and programs in the selection process. Criteria vary from year to year and from campus to campus according to the number and qualifications of applicants to each campus and program. For more information about campuses, consult the university general catalogs available online or in the Foothill College Transfer Center (Room 8329). Complete information on the UC may be found at www.universityofcalifornia.edu/admissions/.

The UC will award graduation credit for up to 105 lower-division quarter units of transferable coursework from a community college. Courses in excess of 105 quarter units will receive subject credit and may be used to satisfy university subject requirements. There is no limit, however, on the number of units used to determine a student's GPA, so all UC-transferable units will apply.

Minimum Admission Requirements for Transfer Applicants Who Are California Residents

The following information was taken from the University of California (UC) publication *2010-2011 Answers for Transfers*. Foothill College is not responsible for any changes that the UC may make to this information. For complete information and updates, access www.universityofcalifornia.edu/admissions.

The UC considers you a transfer applicant if you enrolled in a regular session at a college or university after high school, not including summer session. (You can't disregard your college record and apply as a freshman.) There are three ways to meet the university's minimum admission requirements for transfer students. The path you use depends on the degree to which you satisfied UC's minimum eligibility requirements for freshmen at the time you graduated from high school.

1. If you were eligible for admission to the university when you graduated from high school—meaning you satisfied the subject, scholarship and examination requirements, or were identified by the university during your senior year in high school as eligible in the local context—you are eligible to transfer if you have a 2.0 GPA in your transferable college coursework.
2. If you met the scholarship requirements in high school but did not satisfy the 15-course subject requirement, you must take transferable college courses in the missing subjects, earn a grade of **C** or better in each required course, and maintain a 2.0 GPA in all transferable coursework to be eligible for transfer.



3. If you were not eligible for admission to the university when you graduated from high school because you did not meet the scholarship requirement, you must:
 - a. Complete 90 quarter units/60 semester units of transferable college credit with at least a 2.4 GPA (2.8 for nonresidents). No more than 21 quarter/14 semester units may be taken as **Pass/Not Pass**, and
 - b. Complete the following seven transferable college courses, earning a grade of **C** or better in each course:
 - Two courses in English composition; and
 - One course in mathematical concepts and quantitative reasoning; and
 - Four courses chosen from at least two of these subject areas: arts and humanities, social and behavioral sciences, and physical and biological sciences.
 - Each course must be worth at least 4-5 quarter/3 semester units.

For a list of UC-transferable courses and those that specifically meet the seven-course pattern described above, access www.assist.org.

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

Nonresidents

The minimum admission requirements for nonresidents are very similar to those for residents. If you are not a California resident, consult with the admissions office at the university campus(es) that you're interested in for details. In all cases, however, nonresidents must have a grade-point average of 2.8 or higher in all transferable college coursework.

Be aware that many campuses use criteria that exceed these minimum requirements to select students for admission. For nonresident admission information, you are advised to consult frequently with a counselor and/or read university catalog and university websites or contact the admissions office at the appropriate university.

Priority Application Filing Period

Students are encouraged to apply during the following application periods:

APPLICATION ACCEPTED FOR	CSU	UC
Fall	Oct. 1–Nov. 30	Nov. 1–30
Winter	June 1–30	July 1–31
Spring	Aug. 1–31	Oct. 1–31
Summer	Feb. 1–28	

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 2011–2012

The Foothill College general education (GE) pattern is designed to ensure that students meet the four institutional-level general education student learning outcomes. These are:

1. **Communication**—Demonstrate analytical reading and writing skills, including evaluation, synthesis and research; deliver focused and coherent presentations; demonstrate active, discerning listening and speaking skills in lectures and discussions.
2. **Computation**—Complex problem-solving skills, technology skills, computer proficiency, decision analysis (synthesis and evaluation), apply mathematical concepts and reasoning, and ability to analyze and use numerical data.
3. **Creative, Critical & Analytical Thinking**—Judgment and decision making, intellectual curiosity, problem solving through analysis, synthesis and evaluation, creativity, aesthetic awareness, research method,

identifying and responding to a variety of learning styles and strategies.

4. **Community/Global Consciousness & Responsibility**—Social perceptiveness, including respect, empathy, cultural awareness and sensitivity, citizenship, ethics, interpersonal skills and personal integrity, community service, self-esteem, interest in and pursuit of lifelong learning.

Completion of the Foothill College GE pattern requires that students successfully earn 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. Although several courses have been approved for more than one area, a single course may only be used to satisfy one of Areas I–V, plus either Area VI or VII.

It is imperative to note that this pattern is only appropriate for the student who is pursuing a Foothill College Associate in Arts or Associate in Science degree, but is not appropriate for the student who is pursuing an A.A.-T or A.S.-T degree. The student who plans to earn an A.A.-T or A.S.-T degree must complete either the IGETC or CSU Breadth GE pattern. Because there are significant differences between the three patterns, the student is strongly advised to meet with a counselor to determine which pattern will best meet the student's goals.

I. Humanities

Arts: ART 1, 2A, 2AH, 2B, 2BH, 2C, 2CH, 2D, 2E, 4A, 4E, 5A, 5B, 11, 12, 14, 36, 45A, 45B; DANC 10; F A 1; GID 1; MUS 1, 2A, 2B, 2C, 2D, 3A, 3B, 3C, 7, 7D, 7E, 8, 8H, 10, 11A, 11B, 85A, 85B; PHOT 1, 5, 8, 8H, 10, 10H, 11, 11H; THTR 1, 5B, 20A, 20B, 20C, 20D, 24, 26; VART 2A, 2B, 2C; WMN 15.

Letters: CHIN 1, 2, 3, 4, 5, 6, 13A, 13B, 14A, 14B, 25A, 25B; CRWR 6, 39A, 39B, 40, 41A, 41B; ENGL 5, 5H, 7, 7H, 8, 11, 12, 14, 17, 22, 31, 40, 40H, 41, 42A, 42B, 42C, 46A, 46B, 46C, 48A, 48B, 48C; HIST 4A, 4B, 4C, 4CH; HUMN 1A, 1B; JAPN 1, 2, 3, 4, 5, 6, 13A, 13B, 14A, 14B, 25A, 25B, 33; PHIL 2, 4, 8, 11, 20A, 22, 24, 25; SPAN 1, 2, 3, 4, 5, 6, 13A, 13B, 14A, 14B, 25A, 25B; THTR 2A, 2B, 2C, 8.

II. English

ENGL 1A, 1AH or ESLL 26.

III. Natural Sciences (with laboratory)

ANTH 1 with 1L; ASTR 10A with 10L, 10B with 10L, 10BH with 10L; BIOL 9 with 9L, 10, 13, 14, 15, 41; BTEC 10; CHEM 1A, 25, 30A; GEOG 1; HORT 10; PHYS 2A, 4A, 5A.

IV. Social & Behavioral Sciences

ANTH 1, 2A, 2B, 3, 4, 5, 6, 8, 12; BUSI 22, 53; CHLD 55; COIN 83; ECON 1A, 1B, 9, 25; GEOG 1, 2, 5, 9, 10; GERM 8; HIST 4A, 4B, 4C, 4CH, 8, 9, 9H, 10, 15, 16, 16H, 17A, 17B, 17C, 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; WMN 5, 11, 21.

V. Communication & Analytical Thinking

CIS 12A, 15A, 18, 25A; COMM 1A, 1B, 2, 3, 4, 12, 55; ENGL 1B, 1BH; MATH 1A, 1B, 1C, 2A, 2B, 10, 11, 12, 17, 22, 44, 48A, 48B, 48C, 49, 51; PHIL 1, 7, 8, 50.

VI. United States Cultures & Communities

ANTH 4; ART 2D; CHLD 11; COMM 10, 12; ENGL 5, 8, 12, 31, 40, 40H, 41, 48A, 48B, 48C; F A 2; HIST 9, 9H, 10; MUS 8, 8H; PHIL 22; PHOT 8, 8H; PSYC 22; SOC 8, 23; SOSC 20; SPED 61; THTR 8; WMN 5, 11.

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A.A./A.S. Degree & General Education Requirements 2011–2012

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VII. Lifelong Learning

Students must successfully complete a total of four units or more in lifelong learning from two different academic departments. For the purpose of this area, ALAP, DANC and PHED will be considered one academic department and COIN and CIS will be considered one academic department. Physical activity courses may be taken for up to 2 units.

ALAP 52, 52X, 52Y, 60, 60X, 61, 61X, 62, 62X, 63, 63X, 64, 64X, 66, 66X, 67, 67X, 68X, 70, 70X, 71, 71X, 80, 80X; BIOL 8, 9, 12, 45; BUSI 91L; CIS 2, 10, 50A; CNSL 1, 2, 72, 90; COIN 51; COMM 2, 10, 12, 55; CRLP 55, 70;

DANC 1A, 1B, 2, 3A, 3B, 4, 5, 6, 7; HLTH 21; LIBR 10; PHED 4, 5, 10A, 10B, 10C, 11A, 11B, 13A, 17A, 17B, 19A, 19B, 20A, 20B, 20C, 21A, 21B, 21C, 21D, 22, 22A, 22B, 22C, 23A, 23B, 23C, 24, 24A, 24B, 25A, 26, 26A, 27, 27A, 28, 29, 30, 34A, 34B, 34C, 34D, 34E, 34F, 34G, 34H, 34J, 35A, 35B, 35C, 35D, 35E, 35F, 35G, 36, 37, 38A, 38B, 39, 40, 41, 41A, 42, 45, 45X, 46, 46A, 47B, 47C, 49A, 49B, 50C, 52, 53; SOC 19, 40; SOSOC 20; SPED 52, 61, 72.

Minimum proficiency: ENGL 1A, ENGL 1AH or ESLL 26 and MATH 17, 105 or 108^[1] completed with a letter grade of **C** or better.

Effective Fall 2011

- [1] Intermediate algebra or equivalent is MATH 17, 105 or 108, or mathematics placement test score indicating eligibility for a mathematics course beyond 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.



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, 48A, 48B, 48C, 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; 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 8, 8H, 10, 10H, 11, 11H; THTR 1, 2A, 2B, 2C, 8, 26; VART 1, 2A, 2B, 2C, 3; WMN 15

Humanities: CHIN 4, 5, 16, 25A, 25B; ENGL 5, 7, 7H, 8, 11, 11H, 12, 14, 17, 22, 31, 40, 40H, 41, 42A, 42B, 42C, 46A, 46B, 46C, 48A, 48B, 48C; FA 1, 2; HIST 4A, 4B, 4C, 4CH; HUMN 1A, 1B; JAPN 4, 5, 6, 25A, 25B, 33; PHIL 2, 4, 8, 20A, 20B, 20C, 22, 24, 25; SPAN 4, 5, 6, 25A, 25B; THTR 2A, 2B, 2C.

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, 12, 20, 22; ART 2E; CHLD 55; COMM 10, 12; ECON 1A, 1B, 9, 18, 25; GEOG 2, 5, 9, 10; GERM 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, 5A, 5B, 5C, 6, 12

Biological Sciences: 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.

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; 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.

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

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

For updated information, access www.assist.org.

Effective Fall 2011.

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, 42S&T (combined) 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 (*).

Complete one course from B-4.

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*, 5A*, 5B*, 5C*, 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, 51A, 51AL*; HORT 10*

B-4 Mathematics/Quantitative Reasoning: (Grade **C** or better) CIS 18; MATH 1A, 1B, 1C, 1D, 2A, 2B, 10, 11, 12, 17, 22, 44, 48A, 48B, 48C, 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, 26, 46; VART 1, 2C, 3; WMN 15

C-2 Humanities (Literature, Philosophy, Foreign Languages): CHIN 1, 2, 3, 4, 5, 6, 13C, 14A, 14B, 14C, 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, 31, 40, 40H, 41, 42A, 42B, 42C, 46A, 46B, 46C, 48A, 48B, 48C; FA 1, 2; HIST 4A, 4B, 4C, 4CH; HUMN 1A, 1B; JAPN 1, 2, 3, 4, 5, 6, 25A, 25B, 33; 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, 8, 8L, 8LX, 8LY, 11, 12, 20, 22, 50

D-2 Economics: ECON 1A, 1B, 9, 18, 25; GEOG 5; POLI 9

D-3 Ethnic Studies: (Some CSU campuses have specific courses to meet this requirement.) ANTH 2B, 4, 6, 20; 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 1, 2, 11, 55; HIST 18; 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

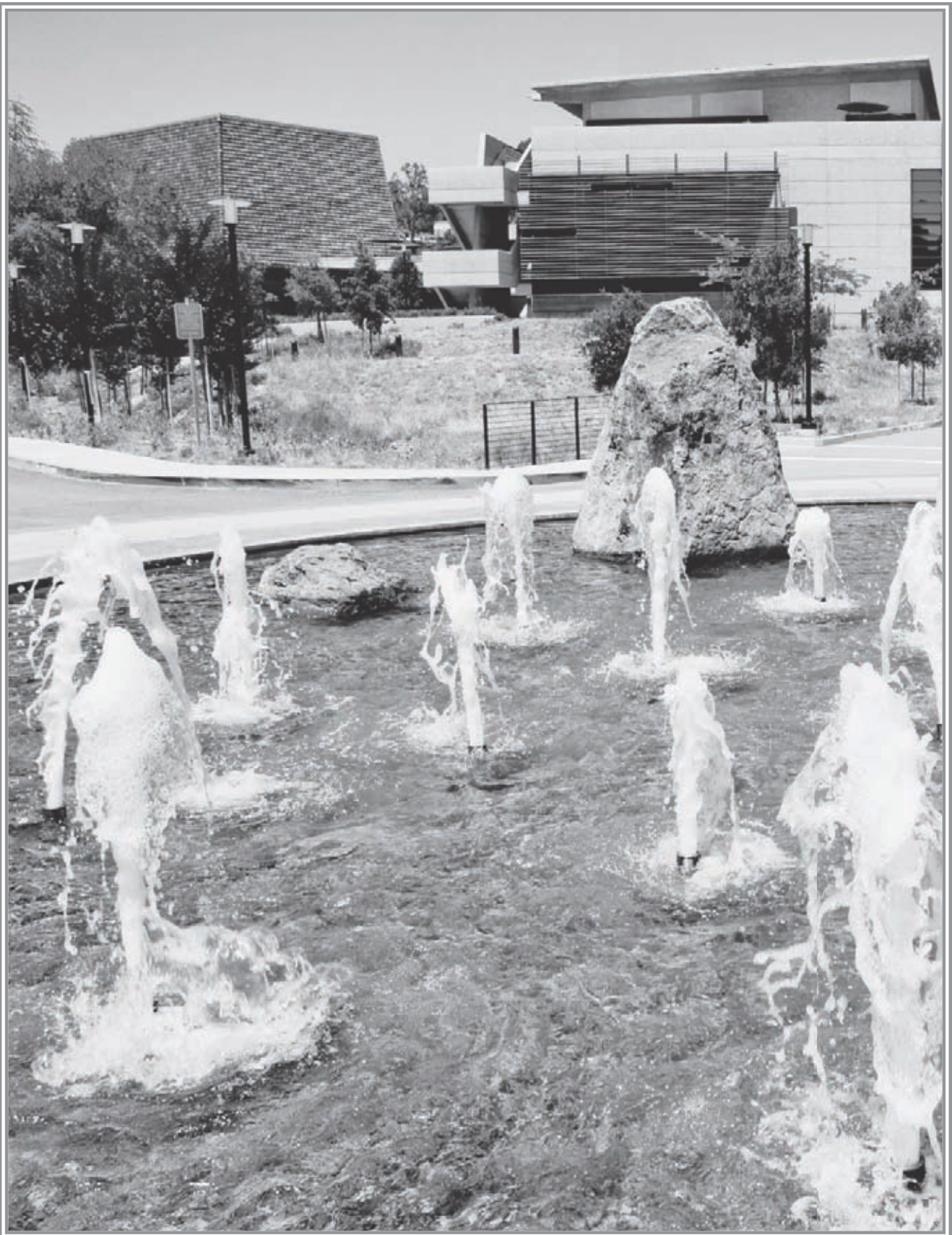
AREA E—Lifelong Understanding & Self-Development

A minimum of four quarter units from the following:

- | | |
|---------------|--|
| 1. BIOL 8 | 7. SOC 19, 40 |
| 2. CNSL 2, 72 | 8. SPED 52, 62, 72 |
| 3. CRLP 70 | 9. Physical Education activity courses (<i>maximum allowed: 2 units</i>) includes DANC 1A, 1B, 3A, 3B, 4, 5, 6, 7, 9 |
| 4. HLTH 21 | |
| 5. PHED 4 | |
| 6. PSYC 50 | |

Effective Fall 2011

For updated information, access www.assist.org.



Major & Certificate Requirements*

NOTE: At the time this catalog was published, no majors for the AA-T and AS-T degrees had been approved. However, majors are under development. For more information, consult with a Foothill counselor and review the Foothill College website.

ACCOUNTING

Program Type(s):

A.A. Degree; Certificate of Achievement; Certificate of Proficiency; Career Certificate

May be transferable to a four-year university.

Units required for major: 90, certificate(s): 9–38

Program Learning Outcomes

- Students will be able to explain accounting terminology, concepts, principles, and frameworks.
- Students will be able to perform accounting-related calculations and demonstrate the ability to use methods and/or procedures to solve accounting problems.

Associate Degree Requirements *

Core Courses: (38 units)^[1]

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)

ECON 1A Principles of Macroeconomics (5 units)

or ECON 1B Principles of Microeconomics (5 units)

Support Courses: (10 units)^[2]

ACTG 51A Intermediate Accounting I (4 units)

ACTG 51B Intermediate Accounting II (4 units)

ACTG 51C Intermediate Accounting III (4 units)

ACTG 58 Auditing (5 units)

ACTG 60 Accounting for Small Business (5 units)

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)

ACTG 75 Accounting for Government & Not-for-Profit (5 units)

BUSI 19 Business Law II (4 units)

BUSI 91L Introduction to Business Information Processing (4 units)

ECON 1A Principles of Macroeconomics (5 units)

ECON 1B Principles of Microeconomics (5 units)

Accounting Certificate of Achievement (38 units)

This certificate awarded after completion of the core courses. General education courses are not required.

CPA Exam Preparation Certificate of Proficiency^[3] (3 units) Non-transcriptable

ACTG 51A Intermediate Accounting I (4 units)

ACTG 51B Intermediate Accounting II (4 units)

ACTG 51C Intermediate Accounting III (4 units)

ACTG 58 Auditing (5 units)

ACTG 66 Cost Accounting (5 units)

ACTG 68A Advanced Tax Accounting I (4 units)

ACTG 75 Accounting for Government & Not-for-Profit (5 units)

Career Certificate in Tax Accounting (23 units) Non-transcriptable

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)

Financial Accounting Career Certificate (22 units) Non-transcriptable

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)

Enrolled Agent Preparation Certificate of Proficiency (16 units) Non-transcriptable

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-transcriptable

ACTG 65 Payroll & Business Tax Accounting (4 units)

ACTG 67 Tax Accounting (5 units)

ACTG 68A Advanced Tax Accounting I (4 units)

[1] May be taken only once for credit.

[2] May be taken only once for credit.

[3] All accounting courses offered at Foothill College meet the unit requirement set by the California Board of Accountancy.

*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, MATH 17, 105 or 108.

**Bookkeeping Specialist Certificate of Proficiency (13 units)
Non-transcriptable**

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-transcriptable**

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**

Program Learning Outcomes

- The student will demonstrate basic water exercise skills and apply them to individuals with disabilities.
- The student will be able to confidently apply the principles of water exercise in a fitness setting.
- The student will be able to practice the standards of professional and ethical conduct approved by the local educational agency and/or place of employment.

**Career Certificate (26 units) Non-transcriptable
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 8 Basic Nutrition (5 units)
BIOL 14 Human Biology (5 units)
BIOL 45 Introduction to Human Nutrition (4 units)
PHED 8 Theory & Concepts of Exercise Physiology (4 units)
HLTH 55 Emergency Response (5 units)
GERN 50 Sociology of Aging (3 units)
GERN 51 Psychology of Aging (3 units)
GERN 52 Health & Aging (3 units)
SPED 62 Psychological Aspects of Disability (4 units)
SPED 72 Stress, Wellness & Coping (3 units)

ADAPTIVE FITNESS THERAPY

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

Units required for major: 90, certificate(s): 28

Program Learning Outcomes

- The student will demonstrate basic water exercise skills and apply them to individuals with disabilities.
- The student will be able to confidently apply the principles of water exercise in a fitness setting.
- The student will be able to practice the standards of professional and ethical conduct approved by the local educational agency and/ or place of employment.

**Associate Degree Requirements *
Core Courses: (32 units)**

BIOL 14 Human Biology (5 units)
or PHED 8 Theory & Concepts of Exercise Physiology (4 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)
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)

Support Courses: (8 units)

BIOL 8 Basic Nutrition (5 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)
BIOL 45 Introduction to Human Nutrition (4 units)
COMM 2 Interpersonal Communication (5 units)
COMM 4 Group Discussion (5 units)
GERN 50 Sociology of Aging (3 units)
GERN 51 Psychology of Aging (3 units)
GERN 52 Health & Aging (3 units)
GERN 54 Continuum of Care Options (3 units)
GERN 55 Issues in Death, Dying & Bereavement Across Cultures (3 units)
GERN 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)

*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, MATH 17, 105 or 108.

Adaptive Fitness Therapy Certificate of Achievement (28 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)
- SPED 74 Principles of Adaptive Aqua Fitness (3 units)

AMERICAN STUDIES

Program Type(s):

A.A. Degree

Units required for major: 90

Program Learning Outcomes

- Students will be able to compare and contrast the relationships between modern life in the U.S. and major historical and cultural events in our history.
- Students will be able to identify and analyze connections between their own lives and academic experiences by comparing them to the American experience in literature and contemporary nonfiction.

Associate Degree Requirements *

Core Courses: (21 units)

- ENGL 41 Literature of Multicultural America (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):

A.A. Degree; Certificate of Proficiency

Units required for major: 90, certificate(s): 9-24

Program Learning Outcomes

- Students will apply an understanding of cross-cultural realities both past and present.
- Students will learn how to critically analyze and interpret anthropological data.
- Students will apply anthropological principles for solving human problems on the local, regional and world scales.

Associate Degree Requirements *

Core Courses: (16 units)^[4]

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)

Support Courses: (16 units)

8 units from the following:

- 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 11 Archaeological Field Methods (4 units)
- ANTH 11B Archaeology Survey (2 units)
- ANTH 12 Applied Anthropology (4 units)
- ANTH 20 Native Peoples of California (4 units)
- ANTH 22 The Aztec, Maya & Their Predecessors (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 unit)
- ANTH 50 Medical Anthropology: Methods & Practice (4 units)
- GEOG 1 Physical Geography (5 units)
or GEOG 2 Human Geography (4 units)

And 8 units of the following:

- 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)
- SOC 30 Social Psychology (4 units)
- SOC 40 Aspects of Marriage & Family (4 units)
- SOSC 20 Cross-Cultural Perspectives for a Multicultural Society (4 units)
- SOSC 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 <http://foothill.edu/bss/certs.php>

Cultural Resource Management Certificate of Proficiency (24 units) Non-transcriptable

- ANTH 3 Prehistory: The Search for Lost Civilizations (4 units)
- ANTH 4 First Peoples of North America (4 units)

[4] Students may also use courses listed under core courses for support courses. One course cannot count for both support and core 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)
ANTH 36 Special Projects in Anthropology (1 unit)

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 Special Projects in Anthropology (1 unit)
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)

**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:

ANTH 34H Honors Institute Seminar in Anthropology (1 unit)
ANTH 35 Department Honors Projects in Anthropology (1 unit)
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)

**Applied Anthropology Certificate of Proficiency (18 units)
Non-transcriptable**

ANTH 2A Cultural Anthropology (4 units)
ANTH 2B Patterns in Anthropology (4 units)
ANTH 12 Applied Anthropology (4 units)
ANTH 36 Special Projects in Anthropology (1 unit)
ANTH 50 Medical Anthropology (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 Special Projects in Anthropology (1 unit)
COMM 12 Intercultural Communication (5 units)
GEOG 2 Human Geography (4 units)
GEOG 12 Introduction to Geographic Information Systems (GIS) (4 units)
HIST 4A History of Western Civilization to 800 AD (4 units)
HIST 9 History of Contemporary Europe (4 units)
or HIST 9H Honors History of Contemporary Europe (4 units)
HUMN 1A Humanities & the Modern Experience I (4 units)
MUS 7D Contemporary Musical Styles: The Beatles in the Culture of Popular Music (4 units)
MUS 8 Music of Multicultural America (4 units)
or MUS 8H Honors Music of Multicultural America (4 units)
SOCS 20 Cross-Cultural Perspectives for a Multicultural 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)
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:

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 unit)
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)

**Physical Anthropology Certificate of Proficiency (9 units)
Non-transcriptable**

ANTH 1 Introduction to Physical Anthropology (4 units)
ANTH 1L Physical Anthropology Laboratory (1 unit)

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 Special Projects in Anthropology (1 unit)
BIOL 1C Evolution, Systematics & Ecology (6 units)
BIOL 10 General Biology: Basic Principles (5 units)
BIOL 12 Human Genetics (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, MATH 17, 105 or 108.

APPRENTICESHIP: ELEVATOR CONSTRUCTORS

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

Program Learning Outcomes

- Students gain expertise and hands-on experience as they construct people-moving systems and perform routine maintenance and repair on personnel and product handling and movement systems to include: elevators, escalators, cranes, dumb waiters, conveyors and people moving systems. These specialized skills are acquired through on-the-job training and classroom instruction and lead to employment in the elevator construction and service industry. After 4.5 years of classroom and work experience, students are recognized as journeypersons within the elevator constructors industry.

Elevator Constructor Career Certificate (24 units) Non-transcriptable

- 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):
Certificate of Achievement; Career Certificate**

Program Learning Outcomes

- Students gain expertise and hands-on experience as they work on plumbing systems to include: drain waste and vent systems, systems for various industrial fluids, public or private water systems and gas piping systems. These specialized skills are acquired through on-the-job training and classroom instruction and lead to employment in the construction and service industry. After five years of classroom and work experience, students are recognized as journeypersons within the pipe trades industry.

Plumbing & Pipefitting/Refrigeration Fitter Certificate of Achievement (42.5 units)

- 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/Hydraulics (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)

Commercial Plumbing Certificate of Proficiency (47.5 units) Non-transcriptable

- APPT 131 P-101 Basic Plumbing Skills (4.5 units)
- APPT 132 P-102 Applied & Related Theory (4.5 units)
- APPT 133 P-201 Beginning Drawing & Design (4.5 units)
- APPT 134A P-202A Rigging; Lay-Out (2.5 units)
- APPT 134B Industrial Safety (2.5 units)
- APPT 135A P-301A Plumbing Fixtures (2.5 units)
- APPT 135B P-301B Plumbing Codes (2.5 units)
- APPT 136 P-302 Advanced Trade Math for Plumbers (4.5 units)
- APPT 137A P-401A Water Systems (2.5 units)
- APPT 137B P-401B Applied Welding (2.5 units)
- APPT 138 P-402 Advanced Drawing & Blueprint Reading (4.5 units)
- APPT 139 Industrial Installations (2.5 units)
- APPT 139B Medical Gas Installations (2.5 units)
- APPT 129 Special Topics (2.5 units)
- APPT 130 Review & Turnout (2.5 units)

Steamfitting Certificate of Proficiency (4 units) Non-transcriptable

- APPT 141 SF 101 Basic Steamfitting Skills (4.5 units)
- APPT 142 SF 102 Related Math, Drawing & Rigging (4.5 units)
- APPT 143 SF 201 Steamfitter Cutting & Welding (4.5 units)
- APPT 144A SF 202A Science; Electricity & Air Conditioning (2.5 units)
- APPT 134B Industrial Safety (2.5 units)
- APPT 145 SF 301 Advanced Trade Math for Steamfitters (4.5 units)
- APPT 146 SF 302 Steam Technology (4.5 units)
- APPT 147A SF 401A Hydronic Systems (2.5 units)
- APPT 147B SF 401B Industrial Rigging (2.5 units)
- APPT 148 SF 402 Advanced Drawing & Blueprint Reading (4.5 units)
- APPT 139A Industrial Installations (2.5 units)
- APPT 139B Medical Gas Installations (2.5 units)
- APPT 129 Special Topics (2.5 units)
- APPT 130 Review & Turnout (2.5 units)

Refrigeration & AC Service Certificate of Proficiency (45.5 units) Non-transcriptable

- APPT 151 RF 101 Basic Refrigeration Service Skills (4.5 units)
- APPT 152 RF 102 Basic Electricity & Refrigeration (4.5 units)
- APPT 153 RF 201 Mechanical Systems (4.5 units)
- APPT 154 RF 202 Electric Controls Fundamentals (4.5 units)
- APPT 155 RF 301 Advanced Electric Controls Fundamentals (4.5 units)
- APPT 156 RF 302 HVAC Pneumatic & Electronic Control Systems (4.5 units)
- APPT 157 RF 401 Industrial Refrigeration & Air Conditioning Service (4.5 units)
- APPT 158 RF 402 Advanced Refrigeration & Chillers (4.5 units)
- APPT 159 RF 501 Start, Test & Balance: HVAC Systems (4.5 units)
- APPT 129 Special Topics (2.5 units)
- APPT 130 Review & Turnout (2.5 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, MATH 17, 105 or 108.

HVACR Technician Certificate of Proficiency (42.5 units) Non-transcriptable

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/Hydraulics (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)

Residential Plumbing Career Certificate (24 units) Non-transcriptable

APPT 121 Introduction to Residential Plumbing, Safety & Tools (2.5 units)
APPT 122 Residential Drainage Systems (2.5 units)
APPT 123 Residential Gas & Water Installations (2.5 units)
APPT 124 Mathematics for Residential Plumbing (2.5 units)
APPT 125 Residential Blueprint Reading (4.5 units)
APPT 126 Residential Piping Layout & Installations; Residential Fixtures (4.5 units)
APPT 127 Residential Plumbing Code (2.5 units)
APPT 128 Residential Gas Installations; Service Work (2.5 units)

APPRENTICESHIP: SHEET METAL

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

Program Learning Outcomes

- Students are prepared with the skills and expertise to detail, fabricate and install a variety of sheet metal products in compliance with applicable standards and codes. These highly demanded skills are acquired through on-the-job training and lead to employment in the construction industry. After five years of classroom and work experience, students are recognized as journeypersons within the sheet metal industry.

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-31 CAD 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 Proficiency (45 units) Non-transcriptable

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 Certificate of Proficiency (45 units) Non-transcriptable

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)

*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, MATH 17, 105 or 108.

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)

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 Decking & Siding Career Certificate (18 units) Non-transcriptable

APRT 155A Safety & Tools for Sheet Metal Siding & Decking Apprentices (4.5 units)

APRT 155B Blueprint Reading for Sheet Metal Siding & Decking Apprentices (4.5 units)

APRT 156A Welding for Sheet Metal Siding & Decking Apprentices (4.5 units)

APRT 156B Measuring, Drawing & Lifting Devices for Sheet Metal Siding & Decking Apprentices (4.5 units)

Sheet Metal Air Conditioning Specialist Career Certificate (10 units) Non-transcriptable

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 Air Conditioning Service Technician Career Certificate (10 units) Non-transcriptable

APRT 140A Electrical Basics for Residential HVAC Service I (2.5 units)

APRT 140B Refrigeration Basics for Residential HVAC Service (2.5 units)

APRT 141A Components of Residential HVAC Service (2.5 units)

APRT 141B Troubleshooting Diagnosis & Repair for Residential HVAC Service (2.5 units)

Sheet Metal Shipyard Specialist Career Certificate (7.5 units) Non-transcriptable

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): Certificate of Proficiency

Program Learning Outcomes

- Students gain expertise and hands-on experience as they work on sound and communication systems to include: voice systems, data systems, video systems, fire alarm systems, home alarm systems, data networking systems, cabling and automation systems. These specialized skills are acquired through on-the-job training and classroom instruction, and lead to employment in the construction and service industry. After three years of classroom and work experience, students are recognized as journeypersons in the sound and communication trade for the electrical industry.

Sound & Communication Installer Certificate of Proficiency (21 units) Non-transcriptable

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 (VDV) State Certification Prep (3.5 units)

ART GENERAL

Program Type(s): A.A. Degree

Units required for major: 90, certificate(s): 21–56.5

Program Learning Outcomes

- Students will be able to create two-dimensional and three-dimensional artwork and designs using appropriate tools, materials, methods and techniques.
- Students will be able to analyze and critically evaluate two-dimensional and three-dimensional creative projects using the current principles and language of art and design.

Associate Degree Requirements *

Core Courses: (32.5 units)

ART 1 Introduction to Art (4.5 units)

ART 4A Drawing I (4 units)

ART 4B Drawing II (4 units)

ART 4C Drawing III (4 units)

or ART 4D Figure Drawing (3 units)

ART 5A Basic Two-Dimensional Design (4 units)

ART 5B Three-Dimensional Design (3 units)

ART 6 Collage & Composition (3 units)

ART 20A Color (3 units)

ART 45A Beginning Ceramics Handbuilding (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, MATH 17, 105 or 108.

Support Courses: (24 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 (4 units)

ART 4D Figure Drawing (3 units)

ART 4E Portrait Drawing (3 units)

ART 8 Basic Perspective Drawing (3 units)

ART 9 Traditional Art Materials (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 (4 units)

ART 45C Advanced Ceramics (3 units)

ART 45F Low-Temperature Ceramic Firing & Glazing Techniques (3 units)

ART 47 Watercolor (3 units)

ART 49 Monoprinting (4 units)
or GID 48 Monoprinting (4 units)

ART 69 Print Arts I (4 units)
or GID 38 Print Arts I (4 units)

GID 39 Print Arts II (4 units)

ART 80 Mural Making: Community Art Project (3 units)

ART 86 Painting with the Computer (3 units)

ART 96 Book Arts I (4 units)
or 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 50 Graphic Design Studio I (4 units)

GID 60 Careers in the Visual Arts (2 units)

GID 32 T-Shirt Design & Garment Printing (4 units)

ART 56 Digital Art & Graphics (4 units)
or GID 74 Digital Art & Graphics (4 units)

PHOT 1 Black & White Photography I (4 units)
or PHOTO 5 Introduction to Photography (4 units)

Certificate of Achievement in Art/General (56.5 units)

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

Certificate of Specialization in Ceramics (21 units) Non-transcriptable

ART 44 Ceramic Sculpture (3 units)

ART 45A Beginning Ceramics Handbuilding (4 units)

ART 45B Beginning Ceramics Potter's Wheel (4 units)

ART 45C Advanced Ceramics (3 units)

ART 46B Potter's Wheel II (3 units)

ART 72 Studio Art Portfolio Preparation (4 units)

Certificate of Specialization in Two-Dimensional Art (26 units) Non-transcriptable

ART 4A Drawing I (4 units)

ART 4B Drawing II (4 units)
or ART 4D Figure Drawing (3 units)

ART 6 Collage & Composition (3 units)

ART 5A Basic Two-Dimensional Design (4 units)

ART 20A Color (3 units)

And

Select 9 units from the list of degree support courses listed above.

Certificate of Specialization in Painting (26 units) Non-transcriptable

ART 4A Introduction to Drawing (4 units)

ART 4B Intermediate Drawing (4 units)

ART 19A Painting (3 units)

ART 19B Painting (3 units)

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

ART 20A Color (3 units)

And

Select 6 units from the list of degree support courses listed above.

ART HISTORY

Program Type(s):

A.A. Degree; Certificate of Achievement

Units required for major: 90, certificate(s): 18-48

Program Learning Outcomes

- Students will be able to collect and assess primary and secondary source information and successfully analyze and comment on that information in the form of a reasoned 8-10-page term paper, complete with a full bibliography (works cited page), utilizing the MLA format.
- Students will be able to demonstrate in written form a strong awareness of the political, social, religious, and technological factors that influence cultures and change in those cultures.

Associate Degree Requirements *

Core Courses: (36 units)

ART 1 Introduction to Art (4.5 units)^[5]

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)

[5] ART 1 recommended before taking art history courses if no previous experience in art.

*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, MATH 17, 105 or 108.

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)
 or ART 12 Introduction to Asian Art (4.5 units)
 or ART 13 Introduction to Islamic Art (4.5 units)

ART 14 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)

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: 700–1800 (4 units)

HIST 4C History of Western Civilization 1789–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 (4 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)

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 STUDIO

Program Type(s):

A.A. Degree; Certificate of Achievement

May be transferable to a four-year university.

Units required for major: 90, certificate(s): 58.5

Program Learning Outcomes

- Students will be able to create two-dimensional and three-dimensional artwork and designs using appropriate tools, materials, methods and techniques.
- Students will be able to analyze and critically evaluate two-dimensional and three-dimensional creative projects using the current principles and language of art and design.

Associate Degree Requirements *

Core Courses: (49.5 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 (4 units)

ART 4B Drawing II (4 units)

ART 4C Drawing III (4 units)
 or ART 4D Figure Drawing (3 units)

ART 6 Collage & Composition (3 units)

ART 5A Basic Two-Dimensional Design (4 units)

ART 5B Three-Dimensional Design (3 units)
 or ART 45A Beginning Ceramics Handbuilding (4 units)

ART 20A Color (3 units)

ART 20B Color (3 units)

ART 72 Studio Art Portfolio Preparation (4 units)

GID 74 Digital Art & Graphics (4 units)

Support Courses: (12 units)^[6]

Two-Dimensional Art

ART 4C Drawing III (4 units)

ART 4D Figure Drawing (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 Print Arts I (4 units)
 or GID 38 Print Arts I (4 units)

ART 86 Painting with the Computer (3 units)

ART 96 Book Arts I (4 units)
 or 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 32 T-Shirt Design & Garment Printing (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)

[6] Students may configure the 12 units of support courses in any manner depending upon the requirements of their transfer institution.

*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, MATH 17, 105 or 108.

Three-Dimensional Art

ART 5B Three-Dimensional Design (3 units)
ART 44 Ceramic Sculpture (3 units)
ART 45A Beginning Ceramics: Handbuilding (4 units)
ART 45B Beginning Ceramics: Potter's Wheel (4 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 & Property 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 12 Introduction to Asian Art (4.5 units)
ART 14 American Art (4.5 units)

Certificate of Achievement in Art/Studio (61.5 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):

A.S. Degree

Units required for major: 90

Program Learning Outcomes

- Students will demonstrate an entry-level of knowledge and skill in a variety of sports medicine disciplines, including athletic training, physical therapy, strength and conditioning and emergency medical care.
- Students will be able to provide quality medical care for the Foothill College intercollegiate athletic teams.

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)
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)
or CHEM 30A Survey of Inorganic & Organic 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)

BIOLOGICAL SCIENCES

Program Type(s):

A.S. Degree

Units required for major: 90

Program Learning Outcomes

- The Biology majors sequence prepares students to use the scientific method to formulate questions, design experiments to test hypotheses, interpret experimental results to draw conclusions, communicate results both orally and in writing, and critically evaluate the use of the scientific method from published sources.
- The Biology majors sequence prepares students to apply evolutionary theory at the molecular, cellular, organismal and population levels to explain the unity and diversity of living things.

Associate Degree Requirements *

Core Courses: (48 units)

BIOL 1A Principles of Cell Biology (6 units)
BIOL 1B Form & Function in Plants & Animals (6 units)
BIOL 1C Evolution, Systematics & Ecology (6 units)
CHEM 1A General Chemistry (5 units)
CHEM 1B General Chemistry (5 units)
CHEM 1C General Chemistry & Qualitative Analysis (5 units)
Students must select one option:
Organic Chemistry (Option #1) or Physics (Option #2).

Option # 1

CHEM 12A Organic Chemistry (6 units)
CHEM 12B Organic Chemistry (6 units)
CHEM 12C Organic Chemistry (6 units)

Option # 2

PHYS 2A General Physics (5 units)
PHYS 2B General Physics (5 units)
PHYS 2C General Physics (5 units)

Or

PHYS 4A General Physics (Calculus) (6 units)
PHYS 4B General Physics (Calculus) (6 units)
PHYS 4C General Physics (Calculus) (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, MATH 17, 105 or 108.

Or^[7]

PHYS 5A General Physics (Calculus) Extended (6 units)

PHYS 5B General Physics (Calculus) Extended (6 units)

PHYS 5C General Physics (Calculus) Extended (6 units)

PHYS 4C General Physics (Calculus) (6 units)

BUSINESS ADMINISTRATION

Program Type(s):

A.A. Degree; Career Certificate

Units required for major: 90, certificate(s): 3.5–26

Program Learning Outcomes

- Students shall develop skills to interpret resource allocation through research in basic financial literacy skills, (computation) (critical thinking skills) by analyzing the data with understanding of communication/ leadership local and in the global sphere of the business world. This is accomplished in writing and in their oral presentations.
- As a result of these basic business experiences, students can then develop strategies on to which area of business they may enter.

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 61 Investment Fundamentals (3 units)

or BUSI 62 Principles of Salesmanship (3 units)

or BUSI 70 Business Professional Ethics (4 units)

or BUSI 90A Principles of Management (4 units)

or BUSI 95 Entrepreneurship: Small Business Management (4 units)

ECON 1A Principles of Macroeconomics (5 units)

ECON 1B Principles of Microeconomics (5 units)

MATH 10 Elementary Statistics (5 units)^[8]

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)

Career Certificate Business Management (26 units)

Non-transcriptable

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

BUSI 22 Principles of Business (4 units)

or BUSI 53 Survey of International Business (4 units)

BUSI 59 Principles of Marketing (4 units)

BUSI 91L Introduction to Business Information Processing (4 units)

or BUSI 95 Entrepreneurship–Small Business Management (4 units)

or CIS 10 Introduction to Business Information Systems (5 units)

COIN 56 E-Business (5 units)

COIN 61 Publishing on the Web Using HTML/XHTML (5 units)

COIN 72 Web Marketing (4 units)

Career Certificate in Entrepreneurship (26 units)

Non-transcriptable

BUSI 95 Entrepreneurship–Small Business Management (4 units)

BUSI 22 Principles of Business (4 units)

BUSI 18 Business Law I (5 units)

BUSI 59 Principles of Marketing (4 units)

BUSI 90A Principles of Management (4 units)

ACTG 1A Financial Accounting I (5 units)

Career Certificate in Marketing (24 units) Non-transcriptable

BUSI 18 Business Law I (5 units)

BUSI 22 Principles of Business (4 units)

BUSI 57 Principles of Advertising (4 units)

or ADVT 57 Principles of Advertising (4 units)

BUSI 58 Survey of International Marketing (4 units)

BUSI 59 Principles of Marketing (4 units)

BUSI 62 Principles of Salesmanship (3 units)

Career Certificate in Basic Financial Literacy (16 units)

Non-transcriptable

BUSI 22 Principles of Business (4 units)

BUSI 61 Investment Fundamentals (3 units)

BUSI 92 Financial Planning Practices (4 units)

ACTG 1A Financial Accounting (5 units)

Career Certificate in Small Business (7 units)

Non-transcriptable

BUSI 95 Entrepreneurship–Small Business Management (4 units)

BUSI 97 Management Seminar (0.5 unit)

BUSI 233A Starting a Small Business (1 unit)

BUSI 231B How to Start a Home-Based Business (0.5 unit)

BUSI 233E Small Business Marketing, Research & Planning (1 unit)

[7] The PHYS 5A, 5B & 5C sequence is equivalent to PHYS 4A & 4B

[8] Consult your counselor for details in meeting math requirements for A.A. Degree, CSU and UC requirements in business administration.

*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, MATH 17, 105 or 108.

BUSINESS INTERNATIONAL STUDIES

Program Type(s):

A.A. Degree; Certificate of Achievement; Career Certificate

Units required for major: 90, certificate(s): 23–51

Program Learning Outcomes

- For information, call the Business & Social Sciences Division Office at (650) 949-7322.

Associate Degree Requirements *

Core Courses: (28 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 53 Survey of International Business (4 units)
ECON 1A Principles of Macroeconomics (5 units)^[9]

Support Courses: (23 units)

Choose 3 courses from the following:

ACTG 1C Managerial Accounting (5 units)
BUSI 95E Small Business Export & Import (3 units)
BUSI 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)
or HIST 9H Honors 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

POLI 2 Comparative Government & Politics (4 units)
or POLI 2H Honors Comparative Government & Politics (4 units)
POLI 15 International Relations/World Politics (4 units)
or POLI 15H Honors International Relations/World Politics (4 units)

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

BUSI 53 Survey of International Business (4 units)
BUSI 58 Survey of International Marketing (4 units)

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

BUSI 95E Small Business Export & Import (3 units)
ECON 25 Introduction to the Global Economy (4 units)

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):

A.S. Degree; Certificate of Achievement

Units required for major: 90, certificate(s): 19–29

Program Learning Outcomes

- The student will be able to use computers to process, organize and present data and information and create basic business documents proofed with no errors.
- The student will be able to demonstrate proficiency in using business office applications and technologies.
- The student will be able to communicate effectively via spoken word, print and media; work collaboratively and ethically in teams, projects, etc.; and work effectively with others from diverse and different backgrounds.

Associate Degree Requirements *

Core Courses: (29 units)

CNET 54A Networking Fundamentals & the TCP/IP Protocol Suite (CCNA I) (5 units)
CNET 54B Routing Protocols & Concepts (CCNA II) (5 units)
CNET 65A Wireless Network Administration (5 units)
or CNET 54N Fundamentals of Cisco Wireless LANs (5 units)
CNET 75B Windows Server 2008 Network Infrastructure (5 units)
CNET 75C Windows Server 2008 Active Directory (5 units)
CNET 119 Business Skills for Service/Support & Project Management (4 units)

Help Desk/Technical Support Certificate of Achievement (29 units)

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

Certificate of Achievement Level II (A+) (19 units)

This certificate will provide the class work necessary to support the acquisition of A+ certification.

CNET 54A Networking Fundamentals & the TCP/IP Protocol Suite (CCNA I) (5 units)
CNET 65A Wireless Network Administration
or CNET 54N Fundamentals of Cisco Wireless LANs (5 units)
CNET 75B Windows Server 2008 Network Infrastructure (5 units)
CNET 119 Business Skills for Service/Support & Project Management (4 units)

BUSINESS TECHNOLOGY: OFFICE ADMINISTRATION

Program Type(s):

A.A. Degree; Certificate of Achievement; Skills Certificate

Units required for major: 90, certificate(s): 25.5–57

Program Learning Outcomes

- A successful student in this program will be able to use computers to process, organize and present data and information and create basic business documents proofed with no errors.
- A successful student in this program will be able to demonstrate proficiency in using business office applications and technologies
- A successful student in this program will be able to communicate effectively via spoken word, print and media; work collaboratively and ethically in teams, projects, etc.; and work effectively with others from diverse and different backgrounds.

Associate Degree Requirements *

Core Courses: (51 or 57 units)

Office Manager: General Office Emphasis (57 units)

ACTG 1A Financial Accounting I (5 units)
ACTG 1B Financial Accounting II (5 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 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 10 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)

Office Manager: Office Computing Emphasis (51 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 10 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 the general office emphasis core courses. General education courses are not required.

Office Manager: Office Computing Certificate of Achievement (56.5 units)

Awarded upon completion of the prerequisite skills and the office computing emphasis core courses. General education courses are not required.

**Business Communication Skills Certificate (20 units)
Non-transcriptable**

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 (3 units)
CIS 10 Introduction to Business Information Systems (5 units)
MATH 220 Elementary Algebra (4 units)

Internet/Electronic Commerce Certificate of Achievement (39 units)

This certificate requires the Business Communication Skills Certificate (20 units) and the following:

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)
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)
CIS 51C Workplace Principles & Practices (4 units)

Word Processing/Desktop Publishing Certificate of Achievement (35 units)

Requires the business communication skills certificate and:

CAST 104A Microsoft Word I (3 units)
CAST 86A Introduction to Adobe InDesign (4 units)
CAST 92A Introduction to Adobe Photoshop (4 units)
CIS 51C Workplace Principles & Practices (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, MATH 17, 105 or 108.

CHEMISTRY

Program Type(s):

A.S. Degree

Units required for major: 90

Program Learning Outcomes

- Knowledge of current theories and applications in the field of chemistry.
- Skill in problem solving and critical thinking.
- An enhanced ability to research, assess and comprehend topics of interest, both for matriculation and for professional success.
- Facility in the safe handling of chemicals and the execution of common laboratory techniques.
- Appreciation of the experimental process and skill in data acquisition and analysis, as applied to defined questions in chemistry.
- An enhanced ability to communicate effectively, both orally and in writing, for the purpose of conveying information.

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:^[10]

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 5A General Physics-Calculus (Extended) (6 units)
PHYS 5B General Physics-Calculus (Extended) (6 units)
PHYS 5C General Physics-Calculus (Extended) (6 units)

CHILD DEVELOPMENT

Program Type(s):

A.A. Degree; Certificate of Achievement

May be transferable to a four-year university.

Units required for major: 90, certificate(s): 24–84

Program Learning Outcomes

- Students will be able to demonstrate understanding of the needs and characteristics of children, ages birth through middle childhood, and the multiple influences on their development as related to the high-quality care and education of young children.

- Students will be able to demonstrate understanding of ethical standards and professional behaviors that deepen knowledge and commitment to the field of early care and education as related to NAEYC Code of Ethical Conduct.

Associate Degree Requirements *

Core Courses: (15 units)

CHLD 55 Child Growth & Development (5 units)
CHLD 56N Principles & Practices of Teaching Young Children (4 units)
CHLD 88 Child, Family & Community (4 units)
CHLD 88B Positive Behavior Management (2 units)

Support Courses: (29 units)

CHLD 11 Affirming Diversity in Education (4 units)
CHLD 56 Observation & Assessment (4 units)
CHLD 86A Mentoring the Early Care & Education Professional (4 units)
CHLD 86B Practicum Student Teaching in an Early Childhood Program (5 units)
CHLD 89 Curriculum for Early Care & Education Programs (3 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 63N Artistic & Creative Development (3 units)
CHLD 79 Caring for Infants & Toddlers in Groups (3 units)

And 3 units of the following:

CHLD 50 School-Age Child (5–12): Behavior & Development (3 units)
CHLD 50A Infant/Toddler Development (3 units)
CHLD 53NC Supporting Children with Special Needs in Children's Programs (3 units)
CHLD 53NP Development of Children with Special Needs (3 units)
CHLD 59 Working with School-Age Children: Principles & Practices (3 units)^[11]
CHLD 63N Artistic & Creative Development (3 units)^[12]
CHLD 71 Planning Creative Art Activities for Children (1 unit)
CHLD 72 Language Development (3 units)
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)^[13]
CHLD 82 Planning Creative Dramatics (1 unit)
CHLD 85 Literacy & Literature in Early Childhood Education (3 units)
CHLD 89 Curriculum for Early Care & Education Programs (3 units)^[14]
CHLD 90B Administration & Supervision of Children's Programs: Part 1 (4 units)
CHLD 90C Administration & Supervision of Children's Programs: Part 2 (4 units)
CHLD 91 Administration & Supervision: Adult Supervision & Leadership (4 units)
ANTH 2A Cultural Anthropology (4 units)
ENGL 8 Children's Literature (4 units)
PSYC 14 Childhood & Adolescence (4 units)

[11] May be used in this section if not used in the previous support course sections.

[12] May be used in this section if not used in the previous support course sections.

[13] May be used in this section if not used in the previous support course sections.

[14] May be used in this section if not used in the previous support course sections.

[10] The PHYS 5A, 5B & 5C sequence is equivalent to PHYS 4A and 4B.

*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, MATH 17, 105 or 108.

SOC 40 Aspects of Marriage & Family (4 units)
SOC 57 Child Advocacy (4 units)
WMN 5 Introduction to Women's Studies (4 units)

Program Supervision Certificate of Achievement (84 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 (68 units)
And the following:
CHLD 86A Mentoring the Early Care & Education Professional (4 units)
CHLD 90B Administration & Supervision of Children's Programs-Part 1 (4 units)
CHLD 90C Administration & Supervision of Children's Programs-Part 2 (4 units)
CHLD 91 Administration & Supervision: Adult Supervision & Leadership (4 units)

Child Development Teacher Certificate of Achievement (68 units)

Meets the requirements for the California Commission on Teacher Credentialing Child Development Teacher Permit.
Awarded after completion of the core and support courses.

And one course from each of the following categories (24 units):

1. English/Language Arts
2. Math or Science
3. Social Sciences
4. Humanities and/or Fine Arts

Early Childhood Education Certificate of Specialization (25 units) Non-transcriptable

Meets the requirements for the California Commission on Teacher Credentialing Child Development Associate Teacher Permit.
CHLD 55 Child Growth & Development (5 units)
CHLD 11 Affirming Diversity in Education (4 units)
CHLD 53NP Development of Children with Special Needs (3 units)
CHLD 56N Principles & Practices of Teaching Young Children (4 units)
CHLD 88 Child, Family & Community (4 units)
CHLD 88B Positive Behavior Management (2 units)
CHLD 89 Curriculum for Early Care & Education Programs (3 units)

School-Age Child Care Certificate of Specialization (25 units) Non-transcriptable

Meets the requirements for the California Commission on Teacher Credentialing Child Development Associate Teacher Permit.
CHLD 55 Child Growth & Development (5 units)
CHLD 50 School-Age Child (5-12): Behavior & Development (3 units)
CHLD 56N Principles & Practices of Teaching Young Children (4 units)
CHLD 59 Working with School-Age Children: Principles & Practices (3 units)
CHLD 88 Child, Family & Community (4 units)
CHLD 88B Positive Behavior Management (2 units)
ENGL 8 Children's Literature (4 units)

Inclusion & Children with Special Needs Certificate of Specialization (25 units) Non-transcriptable

Meets the requirements for the California Commission on Teacher Credentialing Child Development Associate Teacher Permit.
CHLD 55 Child Growth & Development (5 units)
CHLD 11 Affirming Diversity in Education (4 units)
CHLD 53NC Supporting Children with Special Needs in Children's Programs (3 units)
CHLD 53NP Development of Children with Special Needs (3 units)
CHLD 56N Principles & Practices of Teaching Young Children (4 units)
CHLD 88 Child, Family & Community (4 units)
CHLD 88B Positive Behavior Management (2 units)

Infant Toddler Development Certificate of Specialization (24 units) Non-transcriptable

Meets the requirements for the California Commission on Teacher Credentialing Child Development Associate Teacher Permit.
CHLD 55 Child Growth & Development (5 units)
CHLD 50A Infant/Toddler Development (3 units)
CHLD 53NP Development of Children with Special Needs (3 units)
CHLD 56N Principles & Practices of Teaching Young Children (4 units)
CHLD 79 Caring for Infants & Toddlers in Groups (3 units)
CHLD 88 Child, Family & Community (4 units)
CHLD 88B Positive Behavior Management (2 units)

CHINESE

Program Type(s):

A.A. Degree; Career Certificate; Certificate of Specialization

Units required for major: 27, certificate(s): 15-27

Program Learning Outcomes

- The student will be able to communicate with native speakers of Chinese, using the appropriate language for any given situation.
- The student will, by presenting research, demonstrate knowledge of Chinese society, culture and politics.

Associate Degree Requirements *

Core Courses: (27 units)^[15]

Select any 27 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)
CHIN 4 Intermediate Chinese I (5 units)
CHIN 5 Intermediate Chinese II (5 units)
CHIN 6 Intermediate Chinese III (5 units)
CHIN 13A Intermediate Conversation I (4 units)
CHIN 13B Intermediate Conversation II (4 units)
CHIN 13C Intermediate Conversation III (4 units)
CHIN 14A Advanced Conversation I (4 units)
CHIN 14B Advanced Conversation II (4 units)
CHIN 14C Advanced Conversation III (4 units)

[15] *Students who can demonstrate proficiency equivalent to one 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. (Students who are waived of CHIN 1-2-3 must take the Intermediate-Advanced Chinese courses to satisfy the 27-unit 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 ESLL 26, MATH 17, 105 or 108.

CHIN 25A Advanced Composition & Reading I (4 units)
CHIN 25B Advanced Composition & Reading II (4 units)

**Career Certificate in Chinese Language (27 units)
Non-transcriptable**

This certificate is awarded upon completion of the core courses. General education courses are not required.

Note: For students who can demonstrate proficiency equivalent to one 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. (The students who are waived of the lower-level courses (CHIN 1-2-3) must take the Intermediate-Advanced Chinese courses to satisfy the 27-unit requirement.)

**Certificate of Specialization in Chinese Conversation (16 units)
Non-transcriptable**

Select 16 units from the following:

CHIN 13A Intermediate Conversation I (4 units)
CHIN 13B Intermediate Conversation II (4 units)
CHIN 13C Intermediate Conversation III (4 units)
CHIN 14A Advanced Conversation II (4 units)
CHIN 14B Intermediate Conversation II (4 units)
CHIN 14C Advanced Conversation III (4 units)

**Certificate of Specialization in Chinese Language (15 units)
Non-transcriptable^[16]**

CHIN 1 Elementary Chinese I (5 units)
CHIN 2 Elementary Chinese II (5 units)
CHIN 3 Elementary Chinese III (5 units)

COMMUNICATION STUDIES

Program Type(s):

A.A. Degree; Career Certificate

Units required for major: 90, certificate(s): 27

Program Learning Outcomes

- Identify patterns of communication in a variety of contexts.
- Utilize appropriate methods of communication in critical thinking and/or communication situations.

**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)

COMM 54 Intercollegiate Speech/Debate (2 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)
or COMM 1AH Honors Public Speaking (5 units)
COMM 1B Argumentation & Persuasion (5 units)
or COMM 1BH Honors Argumentation & Persuasion (5 units)
COMM 3 Fundamentals of Oral Communication (5 units)
COMM 4 Group Discussion (5 units)
COMM 54 Intercollegiate Speech/Debate (2 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)
or MUS 8H Honors Music of Multicultural America (4 units)
PSYC 22 Psychology of Prejudice (4 units)
SOC 20 Major Social Problems (4 units)
SOSC 20 Cross-Cultural Perspectives for a Multicultural Society (4 units)
THTR 8 Multicultural Modern 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)
or ENGL 5H Honors 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 31 Latino/a Literature (4 units)
ENGL 40 Asian American Literature (4 units)

Rhetoric Concentration Core: (27 units)

COMM 1A Public Speaking (5 units)
or COMM 1AH Honors Public Speaking (5 units)
COMM 1B Argumentation & Persuasion (5 units)
or COMM 1BH Honors Argumentation & Persuasion (5 units)

And two courses from the following:

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)

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

*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, MATH 17, 105 or 108.

And two of the following:

- COMM 2 Interpersonal Communication (5 units)
- COMM 54 Intercollegiate Speech/Debate (2 units)
- COMM 55 Career & Leadership Communication in the Global Workplace (5 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.

COMPUTER SCIENCE

Program Type(s):

A.S. Degree

Units required for major: 90

Program Learning Outcomes

- Based on a given set of guidelines for a product or application, produce program specifications, a successful student in this program will be able to create and debug code for those specifications and write comprehensible documentation.
- A successful student in this program will be able to demonstrate a comprehensive understanding of language tools by synthesizing and integrating multiple language constructs in a single project.
- A successful student in this program will look at a problem and zero-in on the best architecture for the job based on the intended use of the program.
- A successful student in this program will demonstrate proficiency in using data analysis, visualization and knowledge management tools, utilize systems design and analysis approaches to problem-solving, apply scientific method to research design and analysis, design and construct appropriate databases, select and use appropriate statistical methods, communicate effectively via spoken word, print and media and work collaboratively and ethically in teams, projects, etc.

Associate Degree Requirements *

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)
- and**
- MATH 1A Calculus (5 units)
 - MATH 1B Calculus (5 units)
 - MATH 1C Calculus (5 units)
 - MATH 22 Discrete Mathematics (5 units)

Support Courses: (19 units)

Select 19 units from the following:

- 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)
- 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 I) (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):

A.S. Degree; Certificate of Achievement; Career Certificate; Skills Certificate

Units required for major: 90, certificate(s): 20–40

Program Learning Outcomes

- Based on a given set of guidelines for a product or application, produce program specifications, a successful student in this program will be able to create and debug code for those specifications and write comprehensible documentation.
- A successful student in this program will be able to demonstrate a comprehensive understanding of language tools by synthesizing and integrating multiple language constructs in a single project.
- A successful student in this program will look at a problem and zero-in on the best architecture for the job based on the intended use of the program.
- A successful student in this program will demonstrate proficiency in using data analysis, visualization and knowledge management tools, utilize systems design and analysis approaches to problem-solving, apply scientific method to research design and analysis, design and construct appropriate databases, select and use appropriate statistical methods, communicate effectively via spoken word, print and media and work collaboratively and ethically in teams, projects, etc.

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 52A Introduction to Data Management Systems (5 units)
 - CIS 78 Software Engineering (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, MATH 17, 105 or 108.

Support Courses: (20 units)**Select 20 units from the following:**

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 52B Oracle SQL (5 units)

Linux/UNIX System Operation & Administration Certificate of Achievement (40 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 68C1 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)

And 10 units from the following:

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)

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 52A Introduction to Data Management Systems (5 units)
 CIS 78 Software Engineering (5 units)

And 15 units from the following:

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

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 52A Introduction to Data Management Systems (5 units)
 CIS 78 Software Engineering (5 units)

And 15 units from the following:

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

CIS 19A Introduction to Programming with C# (5 units)
 CIS 19W Developing Web Applications (5 units)
 CIS 54C Microsoft SQL Server Database Development & Design (5 units)
 CNET 67 Ruby on Rails: Web Application Development (5 units)

Linux/UNIX Skills Certificate (20 units) Non-transcriptable

CIS 68A Introduction to Linux & UNIX (5 units)
 CNET 54A Network Fundamentals & the TCP/IP Protocol Suite (CCNA 1) (5 units)
 CIS 68C1 Linux & UNIX System Administration (5 units)
 CIS 68C2 Linux & UNIX Networking Administration (5 units)

CREATIVE WRITING**Program Type(s):****A.A. Degree; Certificate of Specialization**

Units required for major: 90, certificate(s): 14-15

Program Learning Outcomes

- Student will write poetry and/or fiction at a publishable level demonstrated by his/her portfolio review.
- Student will demonstrate analytical ability in evaluating and critiquing the work of peers and professionals.

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 39B Advanced Short Fiction Writing (5 units)
 CRWR 41A Poetry Writing (5 units)
 CRWR 41B Advanced Poetry Writing (5 units)

And one of these:

ENGL 3 Technical Writing (5 units)
 ENGL 5 Gay & Lesbian Literature (4 units)
 or ENGL 5H Honors 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)

*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, MATH 17, 105 or 108.

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 46A Monsters, Madness & Mayhem: English Literature from Its Earliest Beginnings to Milton (4 units)
 ENGL 46B Reason, Rebellion & Romanticism: English Literature from 1660–1830s (4 units)
 ENGL 46C Wars & Wastelands: English Literature from the Victorian Period–Present (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)

Certificate of Specialization in Creative Writing: Genres (15 units) Non-transcriptable

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

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

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

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 Monsters, Madness & Mayhem: English Literature from Its Earliest Beginnings to Milton (4 units)
 ENGL 46B Reason, Rebellion & Romanticism: English Literature from 1660–1830s (4 units)
 ENGL 46C Wars & Wastelands: English Literature from the Victorian Period–Present (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)

Certificate of Specialization in Reading & Writing: Fiction (14 units) Non-transcriptable

CRWR 6 Introduction to Creative Writing (5 units)
 CRWR 39A Introduction to Short Fiction Writing (5 units)

And one of these:

ENGL 14 Introduction to Contemporary Fiction (4 units)
 ENGL 46A Monsters, Madness & Mayhem: English Literature from Its Earliest Beginnings to Milton (4 units)
 ENGL 46B Reason, Rebellion & Romanticism: English Literature from 1660–1830s (4 units)
 ENGL 46C Wars & Wastelands: English Literature from the Victorian Period–Present (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)

DATABASE MANAGEMENT

Program Type(s):

A.S. Degree; Certificate of Achievement; Certificate of Proficiency; Skills Certificate

Units required for major: 90, certificate(s): 15–40

Program Learning Outcomes

- Based on a given set of guidelines for a product or application, produce program specifications, a successful student in this program will be able to create and debug code for those specifications and write comprehensible documentation.
- A successful student in this program will be able to demonstrate a comprehensive understanding of language tools by synthesizing and integrating multiple language constructs in a single project.
- A successful student in this program will look at a problem and zero-in on the best architecture for the job based on the intended use of the program.
- A successful student in this program will demonstrate proficiency in using data analysis, visualization and knowledge management tools, utilize systems design and analysis approaches to problem-solving, apply scientific method to research design and analysis, design and construct appropriate databases, select and use appropriate statistical methods, communicate effectively via spoken word, print and media and work collaboratively and ethically in teams, projects, etc.

Associate Degree Requirements *

Core Courses: (20 units)

CIS 52A Introduction to Data Management Systems (5 units)
 CIS 52B Oracle SQL (5 units)
 CIS 52C Database Modeling & Relational Database Design (5 units)
 CIS 68A Introduction to Linux & UNIX (5 units)

Support Courses: (20 units)

Select one option:

Database Administration Option:

CIS 52E Oracle Database Administration I (5 units)
 CIS 52F Oracle Database Administration II (5 units)
 CIS 52Q MySQL In-Depth (5 units)
 CNET 50 Introduction to Computer Networking (5 units)

Or

Database Developer Option:

CIS 52J Oracle: Programming with PL/SQL (5 units)
 CIS 52K Oracle Forms Developer: Build Internet Applications (5 units)
 CIS 52Q MySQL In-Depth (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, MATH 17, 105 or 108.

And select one course:

- CIS 52E Oracle Database Administration I (5 units)
- CIS 52F Oracle Database Administration II (5 units)
- CIS 62A Data Warehousing & Web Mining (5 units)

Or

Open Source Database Programming Option:

- CIS 52N PHP & MySQL (5 units)
- CIS 52P PHP Programming (5 units)
- CIS 52Q MySQL In-Depth (5 units)
- CNET 50 Introduction to Computer Networking (5 units)

Oracle Database Administration Certificate of Achievement (40 units)

- CIS 52A Introduction to Data Management Systems (5 units)
- CIS 52B Oracle SQL (5 units)
- CIS 52C Database Modeling & Relational Database Design (5 units)
- CIS 52E Oracle Database Administration I (5 units)
- CIS 52F Oracle Database Administration II (5 units)
- CIS 52J Oracle: Programming with PL/SQL (5 units)
- CIS 68A Introduction to Linux & UNIX (5 units)
- CNET 50 Introduction to Computer Networking (5 units)

Oracle Database Developer Certificate of Achievement (40 units)

- CIS 52A Introduction to Data Management Systems (5 units)
- CIS 52B Oracle SQL (5 units)
- CIS 52J Oracle: Programming with PL/SQL (5 units)
- CIS 52K Oracle Forms Developer: Build Internet Applications (5 units)
- CIS 68A Introduction to Linux & UNIX (5 units)

Select three:

- CIS 52C Database Modeling & Relational Database Design (5 units)
- CIS 52E Oracle Database Administration I (5 units)
- CIS 52F Oracle Database Administration II (5 units)
- CIS 62A Data Warehousing & Web Mining (5 units)

Open Source Databases Certificate of Proficiency (20 units) Non-transcriptable

- CIS 52C Database Modeling & Relational Database Design (5 units)
- CIS 52N PHP & MySQL (5 units)
- CIS 52Q MySQL: In Depth (5 units)
- CIS 52P PHP Programming (5 units)

Oracle Database Administration Skills Certificate (15 units) Non-transcriptable

- CIS 52B Oracle: SQL (5 units)
- CIS 52E Oracle Database Administration I (5 units)
- CIS 52F Oracle Database Administration II (5 units)

Oracle Database Developer Skills Certificate (15 units) Non-transcriptable

- CIS 52B Oracle: SQL (5 units)
- CIS 52J Oracle: Programming with PL/SQL (5 units)
- CIS 52K Oracle Forms Developer: Build Internet Applications (5 units)

Microsoft Certified IT Professional (MCITP) Database Administration Skills Certificate (15 units) Non-transcriptable

- CIS 54C Microsoft SQL Server Database Development & Design (5 units)
- CIS 54D Microsoft SQL Server Implementation & Maintenance (5 units)
- CIS 54E Microsoft SQL Server Database Administration (5 units)

DENTAL ASSISTING

Program Type(s):

A.S. Degree; Certificate of Achievement

Units required for major: 90, certificate(s): 44

Program Learning Outcomes

- Graduates will demonstrate entry-level competency skills mandated by the Commission on Dental Accreditation and the Dental Board of California.
- Graduates will value and implement proper radiation safety for patients, self and others.

Associate Degree Requirements *

Core Courses: (45 units)

Fall Quarter

- D A 50 Orientation to Dental Assisting (2.5 units)
- D A 51A Introduction to Chairside Dental Assisting (5.5 units)
- D A 62A Dental Sciences I (2 units)
- D A 53A Introduction to Radiography I (3 units)
- D A 58 Specialty Practice Procedures (1 unit)
- D A 71 Infection Control & Hazardous Waste Management (1.5 units)

Winter Quarter

- D A 51B Intermediate Clinical Dental Assisting (2 units)
- D A 57 Office Emergency Procedures (2 units)
- D A 62B Dental Sciences II (2 units)
- D A 53B Dental Radiography II (2 units)
- D A 56 Dental Health Education (1 unit)
- D A 60A Dental Office Business Practices I (2 units)
- D A 73 Dental Assisting Supervised Clinic (2 units)

Spring Quarter

- D A 51C Advance Dental Assisting Skills (3 units)
- D A 53C Dental Radiography III (1 unit)
- D A 62C Dental Sciences III (2 units)
- D A 60B Dental Office Business Practices II (3 units)
- D A 63 Special Patient Populations (1 unit)
- D A 74 Dental Assisting Clinical Practice (2 units)
- D A 85 RDA Review (2 unit)
- D A 88 Pit & Fissure Sealants (1.5 units)

Certificate of Achievement in Dental Assisting (44 units)

Awarded upon completion of the core courses (general education courses are not required) and the following: Cardiopulmonary Resuscitation Certificate (Health Care Provider, American Heart Association; eligibility for ENGL 110 (or equivalent) or ESLL 25 (or equivalent)).

*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, MATH 17, 105 or 108.

DENTAL HYGIENE

Program Type(s):

A.S. Degree

Units required for major: 150

Program Learning Outcomes

- Students will demonstrate the necessary knowledge, skills, and values for the practice of dental hygiene.
- Students will demonstrate the necessary knowledge and values in legal regulations and ethical issues for the practice of dental hygiene.

Associate Degree Requirements *

Core Courses: (120 units)

First Year

Summer Session

D H 50 Orientation to Dental Hygiene (1 unit)

PSYC 1 General Psychology (5 units)

HLTH 21 Health Education (3 units)

Fall Quarter

D H 52A Oral Biology I (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 I (2 units)

BIOL 40A Human Anatomy & Physiology I (5 units)

BIOL 58 Fundamentals of Pharmacology (4 units)

Winter Quarter

D H 52B Oral Biology II (3 units)

D H 60B Dental Radiography II (1 unit)

D H 61A Clinical Technique (6 units)

D H 71 Office Emergency Procedures (2 units)

D H 72 Dental Materials (3 units)

D H 73 Dental Health Education (2 units)

BIOL 40B Human Anatomy & Physiology II (5 units)

BIOL 41 Microbiology (6 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)

Summer Session

D H 62A Clinical Dental Hygiene I (2.5 units)

D H 65 Clinical Local Anesthesia (2.5 units)

Second Year

Fall Quarter

D H 55B Fundamentals of Pathology II (2 units)

D H 57B Periodontics (2 units)

D H 60C Dental Radiography III (.5 unit)

D H 62B Clinical Dental Hygiene II (4 units)

D H 63C Community Dental Health I (3 units)

D H 66 Soft Tissue Curettage (1 unit)

D H 75A Clinical Dental Hygiene Theory I (1.5 units)

Winter Quarter

D H 60D Dental Radiography IV (.5 unit)

D H 62C Clinical Dental Hygiene III (4 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 II (1.5 units)

Spring Quarter

D H 57C Periodontics (2 units)

D H 60E Dental Radiography V (.5 unit)

D H 62D Clinical Dental Hygiene IV (4 units)

D H 64 Ethics, Law & Dental Office Practices (2 units)

D H 75C Clinical Dental Hygiene Theory III (1.5 units)

DIAGNOSTIC MEDICAL SONOGRAPHY

Program Type(s):

A.S. Degree; Certificate of Achievement

Units required for major: 126, certificate(s): 96

Program Learning Outcomes

- Students will demonstrate the necessary knowledge, technical skills, analytical skills, interpersonal skills and diagnostic ability within the scope of practice for diagnostic medical sonography.
- Students will demonstrate the necessary knowledge and values pertaining to professional demeanor, including the implementation of confidentiality and privacy for the practice of diagnostic medical sonography.

Associate Degree Requirements *

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)

*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, MATH 17, 105 or 108.

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)

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)

Certificate of Achievement in Diagnostic Medical Sonography (96 units)

Awarded upon completion of the core courses. General education courses are not required, however the prerequisites and entrance requirements must be met.

ECONOMICS

Program Type(s):

A.A. Degree

Units required for major: 90

Program Learning Outcomes

- Have a working understanding of the role of prices in a market economy, the benefits of trade, economic growth and stability, market structures and competition, market failures and the economic role of government.
- Employ economic reasoning to explain the world around them and make objective decisions based on assessments of costs and benefits.

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: (12 units)

8 units from the following:
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 10 Elementary Statistics (5 units)
MATH 1A Calculus (5 units)

And 4 units from the following:^[17]

HIST 4A History of Western Civilization to 800 AD (4 units)
HIST 4B History of Western Civilization: 700–1800 (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)
POLI 3 Introduction to Political Philosophy/Political Theory (5 units)
or POLI 3H Honors Introduction to Political Philosophy/Political Theory (5 units)
POLI 15 International Relations/World Politics (4 units)
or POLI 15H Honors International Relations/World Politics (4 units)

ENGINEERING

Program Type(s):

A.S. Degree

Units required for major: 90

Program Learning Outcomes

- Formulate logical problem-solving approaches, generate solutions, and assess the reasonableness of the solutions for engineering type analysis problems.
- Design, construct, and produce creative solutions to engineering problems by applying the engineering design process and identifying pertinent design parameters based on the fundamental physics governing a system.
- Demonstrate understanding of the fundamental knowledge necessary for the practice of, or for advanced study in, engineering, including scientific principles, rigorous analysis, and problem solving.
- Demonstrate clear communication skills, responsible teamwork, professional attitudes and ethics.
- Demonstrate a preparation for the complex work environment and continuous learning.

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)

[17] Students may also use courses listed in the first section of support courses to fulfill the requirement for the second section of support courses.

*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, MATH 17, 105 or 108.

and:

PHYS 4A General Physics (Calculus) (6 units)
PHYS 4B General Physics (Calculus) (6 units)
PHYS 4C General Physics (Calculus) (6 units)

or^[18]

PHYS 5A General Physics (Calculus) Extended (6 units)
PHYS 5B General Physics (Calculus) Extended (6 units)
PHYS 5C General Physics (Calculus) Extended (6 units)
PHYS 4C General Physics (Calculus) (6 units)

Support Courses: (20 units)

MATH 2A Differential Equations (5 units)
MATH 2B Linear Algebra (5 units)

And 10 units from the following:

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 50 Introduction to Nanotechnology (5 units)

ENGLISH

Program Type(s):

A.A. Degree

Units required for major: 90, certificate(s): 12

Program Learning Outcomes

- Students will be able to compose a thesis-based essay that clearly communicates a logical, evidence-supported argument.
- Students will demonstrate, in writing, comprehension and critical analysis of college-level texts.

Associate Degree Requirements *

Core Courses: (29 units)

ENGL 1B Composition, Critical Reading & Thinking (5 units)
or ENGL 1BH Honors Composition, Critical Reading & Thinking (5 units)
and

ENGL 46A Monsters, Madness & Mayhem: English Literature from Its Earliest Beginnings to Milton (4 units)

ENGL 46B Reason, Rebellion & Romanticism: English Literature from 1660–1830s (4 units)

ENGL 46C Wars & Wastelands: English Literature from the Victorian Period–Present (4 units)

or

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)

And three courses from the following:^[19]

ENGL 1C Advanced Composition (4 units)
or ENGL 1CH Honors Advanced Composition (4 units)
ENGL 3 Technical Writing (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)

Literature Courses:^[20]

ENGL 5 Gay & Lesbian Literature (4 units)
or ENGL 5H Honors 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 22 Women Writers (4 units)
ENGL 31 Latino/a Literature (4 units)
ENGL 40 Asian American Literature (4 units)
or ENGL 40H Honors Asian American Literature (4 units)
ENGL 41 Literature of Multicultural America (4 units)

Certificate of Specialization in American Literature (12 units)

Non-transcriptable

Select three courses from the following:

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)
or ENGL 40H Honors Asian American Literature (4 units)
ENGL 41 Literature of Multicultural America (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)

Certificate of Specialization in British Literature (12 units)

Non-transcriptable

Select three courses from the following:

ENGL 17 Introduction to Shakespeare (4 units)
ENGL 46A Monsters, Madness & Mayhem: English Literature from Its Earliest Beginnings to Milton (4 units)
ENGL 46B Reason, Rebellion & Romanticism: English Literature from 1660–1830s (4 units)
ENGL 46C Wars & Wastelands: English Literature from the Victorian Period–Present (4 units)

[18] The PHYS 5A, 5B & 5C sequence is equivalent to PHYS 4A & 4B.

*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, MATH 17, 105 or 108.

[19] Two courses must be from the literature section; the student has the option of taking all three required courses from literature alone.

[20] Two courses must be from the literature section; the student has the option of taking all three required courses from literature alone.

Certificate of Specialization in Literary Genres (12 units)

Non-transcriptable

Select three courses from the following:

- 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

Select three courses from the following:

- ENGL 5 Gay & Lesbian Literature (4 units)
or ENGL 5H Honors 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)
or ENGL 40H Honors Asian American Literature (4 units)
- ENGL 41 Literature of Multicultural America (4 units)

Certificate of Specialization in Written Communication (14 units) Non-transcriptable

Select three courses from the following:

- 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)

ENTERPRISE NETWORKING

Program Type(s):

A.S. Degree; Certificate of Proficiency

Units required for major: 90, certificate(s): 15–20

Program Learning Outcomes

- The student will be able to design a network infrastructure to support specific user and business requirements.
- The student will be able to select the appropriate operating system, and operating system features and services to support specific user and business requirements.
- The student will be able to optimize the performance, reliability and availability of network services.
- The student will be able to design, implement and maintain appropriate security services for network systems.

Associate Degree Requirements *

Core Courses: (40 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 75B Windows Server 2008 Network Infrastructure (5 units)

CNET 56A Introduction to Network Security (5 units)
or CNET 54E CCNA 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

- CNET 75C Windows Server 2008 Active Directory (5 units)
- CNET 60F Microsoft Windows 2003 Exchange Server (5 units)

CCNA Emphasis

- CNET 54C LAN Switching & Wireless Networks (CCNA III) (5 units)
- CNET 54D WAN Technologies (CCNA IV) (5 units)

UNIX Emphasis

- CIS 68B Linux & UNIX Shell Programming (5 units)
- CIS 68C2 Linux & UNIX Networking Administration (5 units)

Wireless Emphasis

- CNET 65B Wireless Network Security (5 units)
- CNET 65C Wireless Network Analysis (5 units)

Security Emphasis

- CNET 56E Windows XP/2000/2003 System Security (5 units)
- CNET 56F Linux & UNIX System Security (5 units)

Network Security Certificate of Proficiency (20 units) Non-transcriptable

- 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 56E Windows XP/2000/2003 System Security (5 units)
- CNET 56F Linux & UNIX System Security (5 units)
- CNET 54E CCNA Security (5 units)

Cisco Academy CCNA Certificate of Proficiency (20 units) Non-transcriptable

- 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)

Wireless Networking Certificate of Proficiency (20 units) Non-transcriptable

- 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)

*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, MATH 17, 105 or 108.

**Cisco Academy CCNP Certificate of Proficiency (20 units)
Non-transcriptable**

CNET 54G Building Scalable Cisco Internetworks (CCNP I) (5 units)
CNET 54I Building Cisco Multilayer Switched Networks (BCMSN) (CCNP III) (5 units)
CNET 54J Optimizing Converged Cisco Networks (ONT) (CCNP IV) (5 units)

ENVIRONMENTAL HORTICULTURE & DESIGN

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

Units required for major: 94, certificate(s): 45–64

Program Learning Outcomes

- Students will demonstrate skills necessary to design residential landscapes.
- Students will be able to identify plant material.

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)^[21]

Support Courses: (19 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 (2 units)

And 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)

[21] HORT 80 must be repeated 2 times for a total of 4 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)

And Environmental Horticulture Skills (4 units)

HORT 80 Environmental Horticulture Skills (2 units)^[22]

And 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)
HORT 90G Landscape Design Forum (1 unit)
HORT 90H Landscape Lighting (1 unit)
HORT 90I Landscape Sustainability Practices (1 unit)
HORT 90K Landscaping with Edibles (1 unit)
HORT 90L Plant Propagation: Basic Skills (1 unit)
HORT 90M Plant Nutrition & Fertilization (1 unit)
HORT 90N Plant Materials: Fall Color (1 unit)
HORT 90P Pruning: Basic Skills (1 unit)
HORT 90Q Residential Irrigation Systems (1 unit)
HORT 90R Seasonal Floral Design (1 unit)
HORT 90S Sustainable Integrated Pest Management (IMP) (1 unit)
HORT 90U Landscape Design: Perspective Sketching (1 unit)
HORT 90V Sustainable Organic Gardening (1 unit)
HORT 90X Xeriscaping: Creating Water-Conserving Landscapes (1 unit)
HORT 90Y Cacti & Succulents (1 unit)
HORT 90Z Ornamental Grasses (1 unit)

Certificate of Achievement (64 units)

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

HORT 80 Environmental Horticulture Skills (2 units)^[23]

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)^[24]

GENERAL ELECTRICIAN

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

Units required for major: 90, certificate(s): 27–40

Program Learning Outcomes

- Students gain hands-on experience as they work on electrical systems and component wiring to include: power distribution systems, electrical panels, wiring, conduit, piping, test equipment, transformers, motors, grounding, over-current protection, security, solar, and home automation systems. These specialized skills are acquired through on-the-job training and classroom instruction, and lead to employment in the construction and service industry. After five years of classroom and work experience, students who pass the state license exam are recognized as journeypersons within the electrical trades industry.

[22] HORT 80 must be repeated 2 times for a total of 4 units.

[23] HORT 80 must be repeated four times for a total of 8 units.

[24] HORT 80 must be repeated four times for a total of 8 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, MATH 17, 105 or 108.

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)

Support Courses: (6 units)

Select 6 units from the following:

- APEL 127A Digital Electronics; Motor Speed Control; Programmable Logic Controllers; Low-Voltage Systems & High-Voltage Systems (2 units)
APEL 129A Electrical Systems (2 units)
APEL 129B Basic Estimating/Take-Off & Electrical Safety-Related Work Practices (2 units)
APEL 130 OSHA Safety & Health (2 units)

Inside Wireman Certificate of Achievement (40 units)

- 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)

Residential Electrician Certificate of Achievement (27 units)

- APEL 112 Residential Electrical Air Conditioning & Refrigeration; Telephone Systems (3 units)
APEL 113 Residential Electrical Systems: Basic Security, Solar Power, Home Automation & Life Safety (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

See Humanities.

GENERAL STUDIES: SCIENCE

Program Type(s):

A.S. Degree

Units required for major: 90

Program Learning Outcomes

- Students will be able to integrate the various fields of science in order to critically evaluate and interpret scientific information.
- Students will be able to assess how relevant scientific information could be used to inform their own personal economic, political and social decisions.

Associate Degree Requirements ^{*(25]}

Core Courses: (40 units)^{(26]}

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 BIOL 9L) (4 units)
BIOL 10 General Biology: Basic Principles (5 units)
BIOL 14 Human Biology (5 units)

Area B:

- BIOL 1A Principles of Cell Biology (6 units)
BIOL 1B Form & Function in Plants & Animals (6 units)
BIOL 8 Basic Nutrition (5 units)
BIOL 12 Human Genetics (4 units)
BIOL 13 Marine Biology (5 units)
BIOL 17 Biotechnology & Society (4 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)
BIOL 41 Microbiology (6 units)
BIOL 45 Introduction to Human Nutrition (4 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)

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)

[25] Courses used to meet major requirements satisfy any graduation general education requirement.

[26] To complete your 40 units, your courses must represent all five categories listed below.

*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, MATH 17, 105 or 108.

PHYS 4C General Physics (Calculus) (6 units)
 PHYS 4D General Physics (Calculus) (6 units)
 PHYS 5A General Physics (Calculus) Extended (6 units)
 PHYS 5B General Physics (Calculus) Extended (6 units)
 PHYS 5C General Physics (Calculus) Extended (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 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)

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 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 15D Designing with C++ Classes (5 units)
 CIS 25A Programming in C (5 units)
 CIS 25B 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)
 or ASTR 10BH 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):

A.A. Degree

Units required for major: 90

Program Learning Outcomes

- For information, call the Business & Social Sciences Division Office at (650) 949-7322.

Associate Degree Requirements *

Core Courses: (30 units)^[27]

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 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 21 Psychology of Women: Sex & Gender Differences (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)

Psychology

PSYC 1 General Psychology (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)

[27] Complete any combination of 30 units from at least five departments.

*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, MATH 17, 105 or 108.

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)

History

HIST 4A History of Western Civilization to 800 AD (4 units)
HIST 4B History of Western Civilization 700–1800 (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 History of 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 1812–1914 (4 units)
HIST 17C History of the United States from 1900–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)
or POLI 3H Honors 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)

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):

A.S. Degree; Certificate of Achievement; Career Certificate

Units required for major: 90, certificate(s): 8–38

Program Learning Outcomes

- Interpret spatially distributed data and draw valid conclusions by using maps, graphs and/or Geographic Information Systems (GIS)
- Evaluate core concepts in cultural and physical geography and apply them to contemporary events and issues.

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: (16 units)

8 units from the following:

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: 700–1800 (4 units)
POLI 15 International Relations/World Politics (4 units)
or POLI 15H Honors International Relations/World Politics (4 units)

And 8 units from the following:^[28]

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)

Geographic Information Systems Analyst Certificate of Achievement (38 units)

Required Courses: (25 units)

GEOG 12 Introduction to Geographic Information Systems (GIS) (4 units)
GEOG 36Y Special Projects in Geography (3 units)
GEOG 52 Advanced Geographic Information Systems (GIS) (4 units)
GEOG 54A Seminar in Specialized Applications & Geographic Information Systems I (2 units)
GEOG 54B Seminar in Specialized Applications of Geographic Information Systems II (2 units)
GEOG 58 Remote Sensing & Digital Image Processing (3 units)
GEOG 59 Cartography, Map Presentation & Design (2 units)
CIS 52B Oracle SQL (5 units)

And two courses in the same discipline from the following list:^[29]

ANTH 1 Introduction to Physical Anthropology (4 units)
ANTH 2A Cultural Anthropology (4 units)
ANTH 2B Patterns of Culture (4 units)
ANTH 8 Introduction to Archaeology (4 units)
BIOL 9 Environmental Biology (4 units)
BIOL 10 General Biology: Basic Principles (5 units)
BIOL 13 Marine Biology (5 units)
BIOL 15 California Ecology/Natural History (5 units)
BUSI 22 Principles of Business (4 units)
BUSI 53 Survey of International Business (4 units)
BUSI 57 Principles of Advertising (4 units)
BUSI 59 Principles of Marketing (4 units)
CIS 27B Computer Science II: Java (5 units)
CIS 52C Database Modeling & Relational Database Design (5 units)
CIS 52A Introduction to Data Management Systems (5 units)

[28] Students may also use courses listed in the first section of support courses to fulfill the requirement for the second section of support courses.

[29] Alternative focus areas are accepted by petition.

*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, MATH 17, 105 or 108.

CIS 68L Intermediate Python Programming (5 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)
 SOC 1 Introduction to Sociology (5 units)
 SOC 8 Popular Culture (4 units)
 SOC 20 Major Social Problems (4 units)
 SOC 23 Race & Ethnic Relations (4 units)

And one course from the following:

COIN 61 Publishing on the Web Using HTML/XHTML (5 units)
 CIS 27A Computer Science I: Java (5 units)
 CIS 12A Fundamentals of Visual Basic.Net Programming (5 units)

**Career Certificate in Geographic Information Systems
 (23 units) Non-transcriptable
 Required Courses: (15 units)**

GEOG 12 Introduction to Geographic Information Systems (GIS) (4 units)
 GEOG 52 Advanced Geographic Information Systems (GIS) (4 units)
 GEOG 54A Seminar in Specialized Applications of Geographic Information Systems I (2 units)
 GEOG 58 Remote Sensing & Digital Image Processing (3 units)
 GEOG 59 Cartography, Map Presentation & Design (2 units)

And two courses in the same discipline from the following list:^[30]

ANTH 1 Introduction to Physical Anthropology (4 units)
 ANTH 2A Cultural Anthropology (4 units)
 ANTH 2B Patterns of Culture (4 units)
 ANTH 8 Introduction to Archaeology (4 units)
 BIOL 9 Environmental Biology (4 units)
 BIOL 10 General Biology: Basic Principles (5 units)
 BIOL 13 Marine Biology (5 units)
 BIOL 15 California Ecology/Natural History (5 units)
 BUSI 22 Principles of Business (4 units)
 BUSI 53 Survey of International Business (4 units)
 BUSI 57 Principles of Advertising (4 units)
 BUSI 59 Principles of Marketing (4 units)
 CIS 27B Computer Science II: Java (5 units)
 CIS 52C Database Modeling & Relational Database Design (5 units)
 CIS 52A Introduction to Data Management Systems (5 units)
 CIS 68L Intermediate Python Programming (5 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)
 SOC 1 Introduction to Sociology (5 units)
 SOC 8 Popular Culture (4 units)
 SOC 20 Major Social Problems (4 units)
 SOC 23 Race & Ethnic Relations (4 units)

**Web Mapping Certificate of Proficiency (9 units)
 Non-transcriptable**

GEOG 73 Dynamic & Interactive Mapping (4.5 units)
 GEOG 78 Geographic Information Science Projects (4.5 units)

**GeoTechnology Certificate of Proficiency (8 units)
 Non-transcriptable**

GEOG 12 Introduction to Geographic Information Systems (GIS) (4 units)
 GEOG 101A Introduction to Mapping & Computerized Cartography (1 unit)
 GEOG 101B A Preface to GIS: Computer-Based Mapping & GIS (1 unit)
 GEOG 101C Global Positioning Systems (GPS) Fundamentals (1 unit)
 GEOG 101D Technology Careers & Work Force Preparation (1 unit)

GERONTOLOGY

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

Units required for certificate: 30

Program Learning Outcomes

- Students will demonstrate competency in the necessary knowledge, skills and values required for entry-level gerontology professional practice.
- Graduates will demonstrate competency according to the Association for Gerontology & Higher Education (AGHE) Standards & Guidelines.

**Career Certificate in Gerontology (30 units) Non-transcriptable
 Core Courses: (24 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 54 Continuum of Care Options (3 units)
 GERN 55 Issues in Death, Dying & Bereavement Across Cultures (3 units)
 GERN 56 Aging & Diversity (3 units)
 SPED 55 Geriatric Fitness Concepts (3 units)

Support Courses: (6 units)

BIOL 8 Basic Nutrition (5 units)
 BIOL 45 Introduction to Human Nutrition (4 units)
 HLTH 55 Emergency Response (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 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)

[30] Alternative focus areas are accepted by petition.

*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, MATH 17, 105 or 108.

GRAPHIC & INTERACTIVE DESIGN

Program Type(s):

A.A. Degree; Certificate of Achievement; Skills Certificate

Units required for major: 61, certificate(s): 11–61

Program Learning Outcomes

- Students will understand the design process from sketching to final comprehensive.
- Students will be able to create unique graphic designs that communicate ideas to others.

Associate Degree Requirements *

Core Courses: (45 units)

ART 4A Drawing I (4 units)
ART 5A Basic Two-Dimensional Design (4 units)
ART 20A Color (3 units)
GID 1 History of Graphic Design (4 units)
or ART 36 History of Graphic Design (4 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 60 Careers in the Visual Arts (2 units)
or VART 50 Careers in the Visual Arts (2 units)
GID 61 Portfolio (4 units)
GID 70 Graphic Design Drawing (4 units)
PHOT 1 Black & White Photography (4 units)
or PHOT 5 Introduction to Photography (4 units)

Support 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)
or ART 30 Paper Arts I (4 units)
GID 32 T-Shirt Design & Garment Printing (4 units)
GID 38 Print Arts I (4 units)
or ART 69 Print Arts I (4 units)
GID 40 Digital Printmaking (4 units)
GID 42 Etching & Intaglio Printing (4 units)
or ART 37 Etching & Intaglio Printing (4 units)
GID 44 Relief Printing (4 units)
or ART 38 Relief Printing (4 units)
GID 46 Screenprinting (4 units)
or ART 39 Screenprinting (4 units)
GID 56 Website Design (4 units)
GID 62 Service Learning Projects (4 units)
GID 64A Graphic & Interactive Design Experiential Internship (4 units)
GID 71 Storyboarding (4 units)
GID 72 Cartooning (4 units)
GID 74 Digital Art & Graphics (4 units)
or ART 56 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)
GID 84 Motion Graphics (4 units)
or VART 87 Motion Graphics (4 units)

GID 90 Book Arts I (4 units)
or ART 96 Book Arts I (4 units)
GID 91 Book Arts II (4 units)
GID 92 Letterpress Printing (4 units)
GID 93 Letterpress Projects (4 units)
GID 94 Book Arts Professional Practices (3 units)
GID 95 Graphic Arts Studio Projects (4 units)

Certificate of Achievement (61 units)

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

Graphic Design Skills 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 Skills 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)
GID 84 Motion Graphics (4 units)
or VART 87 Motion Graphics (4 units)

Video Design Skills 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)

Book Arts Skills Certificate (12 units) Non-transcriptable

GID 90 Book Arts I (4 units)
or ART 96 Book Arts I (4 units)
GID 91 Book Arts II (4 units)
GID 92 Letterpress Printing (4 units)

Printmaking Skills Certificate (12 units) Non-transcriptable

GID 38 Print Arts I (4 units)
or ART 69 Print Arts I (4 units)
GID 39 Print Arts II (4 units)
GID 40 Digital Printmaking (4 units)

Printmaking Studio Skills Certificate (11 units) Non-transcriptable

GID 42 Beginning Etching (3 units)
GID 44 Relief Printing (4 units)
GID 46 Screenprinting (4 units)

Garment Printing Skills Certificate (12 units) Non-transcriptable

GID 32 T-Shirt Design & Garment Printing (4 units)
GID 70 Graphic Design Drawing (4 units)
GID 74 Digital Art & Graphics (4 units)
or ART 56 Digital Art & Graphics (4 units)

Illustration Skills Certificate (12 units) Non-transcriptable

GID 70 Graphic Design Drawing (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, MATH 17, 105 or 108.

GID 74 Digital Art & Graphics (4 units)
or ART 56 Digital Art & Graphics (4 units)
GID 76 Illustration & Digital Imaging (4 units)

Web Design Skills Certificate (12 units) Non-transcriptable

GID 54 Typography (4 units)
GID 56 Website Design (4 units)
GID 71 Storyboarding (4 units)

HISTORY

Program Type(s):

A.A. Degree

Units required for major: 90

Program Learning Outcomes

- Identify connections between specific people, groups, events and ideas and larger historical themes, developments and topics.
- Critically analyze a variety of primary and secondary sources and draw valid historical interpretations from them.

Associate Degree Requirements *

Core Courses: (24 units)

HIST 4A History of Western Civilization to 800 AD (4 units)
HIST 4B History of Western Civilization 700–1800 (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)
HIST 18 Introduction to Middle Eastern Civilization (4 units)
HIST 20 History of Russia & the Soviet Union (4 units)
HIST 34H Honors Institute Seminar in History (1 unit)
HIST 36 Special Projects in History (1 unit)

HUMANITIES

Program Type(s):

A.A. Degree

Units required for major: 90

Program Learning Outcomes

- The student will have a heightened knowledge of cultural diversity in the world, and will be able to communicate how this diversity is reflected through the artistic and intellectual creations of humanity from the dawn of civilization to the present.
- The student will gain increased knowledge of how the enduring questions of humanity center on the meaning and experience of human life, and communicate how this meaning and experience is demonstrated through a

continuity of thought through the changing artistic conventions of history. They will have the knowledge and skill to articulate orally or in writing the world of common meanings that unite humanity across time.

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)

Select 4 categories from the list below. Complete at least four units in each selected category.

Art

ART 2E A History of Women in Art (4.5 units)
ART 3 Modern Art and Contemporary Thought (4.5 units)
ART 12 Introduction to Asian Art (4.5 units)
ART 13 Introduction to Islamic Art (4.5 units)
ART 14 American Art (4.5 units)
ART 36 History of Graphic Design (4 units)
ART 87 Art of the Electronic Age
DANC 10 Topics in Dance History (4 units)
FA 1 Introduction to Popular Culture (4 units)
FA 2 Popular Culture & US History (4 units)
GID 1 History of Graphic Design (4 units)
PHOT 8 Photography of Multicultural America (4 units)
or PHOT 8H 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)

Theatre

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)
VART 2A History of Film 1895–1945 (4 units)
VART 2B History of Film 1945 to Current (4 units)
VART 2C Current Trends in Film, TV & the Internet (4 units)
VART 3 American Cinema (4 units)

Language

CHIN 1 Elementary Chinese I (5 units)
CHIN 2 Elementary Chinese II (5 units)
CHIN 3 Elementary Chinese III (5 units)
CHIN 4 Intermediate Chinese I (5 units)
CHIN 5 Intermediate Chinese II (5 units)
CHIN 6 Intermediate Chinese III (5 units)
CHIN 13A Intermediate Conversation I (4 units)
CHIN 13B Intermediate Conversation II (4 units)
CHIN 13C Intermediate Conversation III (4 units)
CHIN 14A Advanced Conversation I (4 units)
CHIN 14B Advanced Conversation II (4 units)
CHIN 14C Advanced Conversation III (4 units)

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CHIN 25A Advanced Composition & Reading I (4 units)
 CHIN 25B Advanced Composition & Reading II (4 units)
 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)
 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)
 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)

Literature

ENGL 5 Gay & Lesbian Literature (4 units)
 or ENGL 5H Honors 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 Literature (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 Monsters, Madness & Mayhem: English Literature from Its Earliest Beginnings to Milton (4 units)
 ENGL 46B Reason, Rebellion & Romanticism: English Literature from 1660–1830s (4 units)
 ENGL 46C Wars & Wastelands: English Literature from the Victorian Period–Present (4 units)
 ENGL 48A Survey of Early English 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)

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)
 MUS 7E Music of the Blues (4 units)
 MUS 8 Music of Multicultural America (4 units)
 or MUS 8H Honors 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)

Philosophy

PHIL 2 Introduction to Social & Political Philosophy (4 units)
 PHIL 4 Introduction to Philosophy (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)

INFORMATICS

Program Type(s):

A.S. Degree; Certificate of Achievement; Skills Certificate

Units required for major: 90, certificate(s): 33–63

Program Learning Outcomes

- Based on a given set of guidelines for a product or application, produce program specifications, a successful student in this program will be able to create and debug code for those specifications and write comprehensible documentation.
- A successful student in this program will be able to demonstrate a comprehensive understanding of language tools or application tools by synthesizing and integrating multiple language constructs in a single project.
- A successful student in this program will look at a problem and zero-in on the best architecture for the job based on the intended use of the program or application.
- A successful student in this program will demonstrate proficiency in using data analysis, visualization and knowledge management tools, utilize systems design and analysis approaches to problem-solving, apply scientific method to research design and analysis, design and construct

*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, MATH 17, 105 or 108.

appropriate databases, select and use appropriate statistical methods, communicate effectively via spoken word, print and media and work collaboratively and ethically in teams, projects, etc.

Program Prerequisites: (9 units)

CIS 61A Informatics (5 units)
CIS 10 Introduction to Business Information Systems (5 units)
or CIS 1 Introduction to Computer Science (5 units)
or CIS 2 Computers & Society (5 units)
or BUSI 91L Introduction to Business Information Processing (4 units)

Subject Matter Preparation: (15 units)

This requirement may be satisfied by completing 15 units of approved study by academic petition from the chosen discipline of study or through applicable work experience (300 hours minimum). The dean in the designated area of emphasis must validate that the student is sufficiently prepared.

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)

Certificate of Achievement in Informatics (66.5 units)

Awarded upon completion of the program prerequisites, subject matter preparation and the core courses. General education courses are not required.

Skills Certificate in Informatics (33 units) Non-transcriptable Program Prerequisites (9 units)

CIS 61A Informatics (5 units)
CIS 10 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):

A.S. Degree; Certificate of Achievement; Skills Certificate

Units required for major: 90, certificate(s): 23–50

Program Learning Outcomes

- A successful student in this program will demonstrate proficiency using basic interactive and multimedia development applications and audio/visual technologies.
- A successful student in this program will select and use appropriate interactive and multimedia design approaches and develop complete projects that communicate specific ideas in a coherent, effective manner using audio, video, print and other digital media.

Associate Degree Requirements *

Core Courses: (35 units)

CAST 52A Introduction to Macromedia Flash (5 units)
CAST 52B Advanced Macromedia Flash (5 units)
CAST 70C Interactive Multimedia Project (4 units)
CAST 70D 3D Modeling & Animation for Multimedia (4 units)
COIN 51 Internet Technology & Applications: Introduction (5 units)
GID 74 Digital Art & Graphics (4 units)
GID 71 Storyboarding (4 units)
GID 80 Digital Sound, Video & Animation (4 units)

Support Courses: (15 units)

One course from the following:

CIS 1 Introduction to Computer Science (5 units)
CIS 12A Introduction to Visual Basic.Net Programming (5 units)
CIS 12C Intermediate Visual Basic 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)

And 10 units from the following:

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 and support courses. The English and math proficiencies are required but general education courses are not required.

*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, MATH 17, 105 or 108.

Interactive & Multimedia Technologies Skills Certificate (23 units) Non-transcriptable

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)

INTERNET TECHNOLOGY

Program Type(s):

A.S. Degree; Certificate of Achievement; Certificate of Proficiency; Skills Certificate

Units required for major: 90, certificate(s): 14–41

Program Learning Outcomes

- A successful student in this program will be able to use current developmental standards, technologies and software to create and deploy media to Web applications and devices for business and other applications.
- A successful student in this program will be able to develop and deploy functional and secure business applications technologies.

Associate Degree Requirements *

Core Courses: (35–41 units)

Electronic Business Concentration: (41 units)

CNET 50 Introduction to Computer Networking (5 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)
COIN 72 Web Marketing (4 units)

And three from the following:

BUSI 22 Principles of Business (4 units)
BUSI 53 Survey of International Business (4 units)
BUSI 95 Entrepreneurship–Small Business Management (4 units)
CIS 10 Introduction to Business Information Systems (5 units)

Web Programming Concentration: (40 units)

CIS 27A Computer Science I: Java (5 units)
CIS 52N PHP & MySQL (5 units)
CIS 52P PHP Programming (5 units)
CIS 68A Introduction to Linux & UNIX (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)
COIN 78 Extensible Markup Language (XML) (5 units)

Web Administration Concentration: (35 units)

CIS 52A Introduction to Data Management Systems (5 units)
CIS 52N PHP & MySQL (5 units)
CIS 52P PHP Programming (5 units)
CIS 68A Introduction to Linux & UNIX (5 units)
CIS 68C1 Linux & UNIX System Administration (5 units)

COIN 61 Publishing on the Web Using HTML/XHTML (5 units)
COIN 66 Apache Web Server Management (5 units)

Internet Technology: Electronic Business Certificate of Achievement (41 units)

Awarded upon completion of the electronic business concentration courses. General education courses are not required.

Internet Technology: Web Programming Certificate of Achievement (40 units)

Awarded upon completion of the Web programming concentration courses. General education courses are not required.

Internet Technology: Web Administration Certificate of Achievement (35 units)

Awarded upon completion of the Web administration concentration courses. General education courses are not required.

AJAX Certificate of Proficiency (40 units) Non-transcriptable

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)

Electronic Business Skills Certificate (27 units) Non-transcriptable

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 72 Web Marketing (4 units)

And two from the following:

BUSI 22 Principles of Business (4 units)
BUSI 53 Survey of International Business (4 units)
BUSI 95 Entrepreneurship–Small Business Management (4 units)
CIS 10 Introduction to Business Information Systems (5 units)

Web Development Certificate of Proficiency (23 units) Non-transcriptable

COIN 70A Introduction to Programming Using JavaScript (5 units)
COIN 70B Using JavaScript (5 units)

And three from the following:

CAST 52A Introduction to Macromedia Flash (5 units)
COIN 74A Web Publishing Tools: Dreamweaver Basics (5 units)
COIN 82 Images for the Web (4 units)
GID 80 Digital Sound, Video & Animation (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, MATH 17, 105 or 108.

**Web Development Skills Certificate (20 units)
Non-transcriptable**

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 Publishing: Dreamweaver Certificate of Proficiency
(14 units) Non-transcriptable**

COIN 61 Publishing on the Web Using HTML/XHTML (5 units)
COIN 74A Web Publishing Tools: Dreamweaver Basics (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)

JAPANESE

Program Type(s):

A.A. Degree; Career Certificate

Units required for major: 90, certificate(s): 20–52

Program Learning Outcomes

- The student will be able to communicate with native speakers of Japanese, using the appropriate language, styles, sensitivity and level of respectfulness in various situations.
- The student will demonstrate knowledge of Japanese society, culture and history, and will be able to analyze and discuss cultural differences and similarities.

Associate Degree Requirements *

Core Courses: (27 units)^[31]

Select any 27 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)
JAPN 53 Modern Japanese Society, Culture & Business Customs (3 units)
JAPN 63 Japanese Business Culture & Etiquette (1 unit)
JAPN 192 Community Service Learning for Japanese (1 unit)

[31] Students who can demonstrate proficiency equivalent to one 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. The students who are waived of JAPN 1–2–3 must take the intermediate-advanced Japanese courses to satisfy the 27-unit requirement.

**Career Certificate in Japanese Tutoring^[32] (52 units)
Non-transcriptable**

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)
or JAPN 34 Survey of Contemporary Japanese Culture (4 units)
JAPN 192 Community Service Learning for Japanese (1 unit)^[33]

**Career Certificate in Japanese Language^[34] (27 units)
Non-transcriptable**

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

**Certificate of Specialization in Japanese
Conversation & Culture^[35] (27 units) Non-transcriptable**

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)

LAW & SOCIETY (PRE-LAW)

Program Type(s):

A.A. Degree

Units required for major: 90

Program Learning Outcomes

- For information, call the Business & Social Sciences Division Office at (650) 949-7322.

Associate Degree Requirements *

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)

[32] All courses must be completed at Foothill College.

[33] JAPN 192 must be taken six times, for a total of 6 units

[34] Students who can demonstrate proficiency equivalent to one 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. The students who are waived of JAPN 1–2–3 must take the intermediate-advanced Japanese courses to satisfy the 27-unit requirement.

[35] All courses must be completed at Foothill College.

*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, MATH 17, 105 or 108.

Support Courses: (13 units)

9 units from the following:

BUSI 19 Business Law II (4 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 20 Major Social Problems (4 units)

SOC 40 Aspects of Marriage & Family (4 units)

And 4 units from the following:^[36]

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)

SOC 11 Introduction to Social Welfare (5 units)

SOC 19 Alcohol & Drug Abuse (4 units)

SOC 57 Child Advocacy (4 units)

LEADERSHIP & SERVICE

Program Type(s):

Certificate of Proficiency

Program Learning Outcomes

- Students will have gained the core skills and values needed for development of leadership skills, including communication, decision-making, governance alternatives, using parliamentary procedure, being an effective member of a team, and developing a budget.
- Students will demonstrate skills needed to effectively provide service to and impact the surrounding community, and will be prepared for future civic responsibility, and participation in building communities.

Certificate of Proficiency in Leadership & Service

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)

SOSC 79 Introduction to Community Service (1 unit)

And at least 4 units of any combination of laboratory courses:

CNSL 86LX Leadership Laboratory (1 unit)

or CNSL 86LY Leadership Laboratory (2 units)

or CNSL 86LZ Leadership Laboratory (3 units)

Support Courses (17 units):

Select one course from each category; and one additional course from the category of your choice.

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)

or ENGL 5H Honors 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)

PSYC 21 Psychology of Women: Sex & Gender Differences (4 units)

or SOC 21 Psychology of Women: Sex & Gender Differences (4 units)

or WMN 21 Psychology of Women: Sex & Gender Differences (4 units)

PSYC 22 Psychology of Prejudice (4 units)

SOSC 20 Cross-Cultural Perspectives for a Multicultural Society (4 units)

SOC 23 Race & Ethnic Relations (4 units)

THTR 8 Multicultural Performing Arts in Modern America (4 units)

WMN 5 Introduction to Women's Studies (4 units)

WMN 11 Women in Global Perspective (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)

[36] Students may also use courses listed in the first section of support courses to fulfill the requirement for the second section of support courses.

MATHEMATICS

Program Type(s):

A.S. Degree

Units required for major: 90

Program Learning Outcomes

- The student will be able to clearly communicate mathematical ideas through graphs, tables of data, equations and verbal descriptions.
- The student will be able to construct appropriate mathematical models of natural phenomena, develop those models with appropriate mathematical techniques, and interpret results of those models.

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)

PHYS 5A General Physics (Calculus) Extended (6 units)

PHYS 5B General Physics (Calculus) Extended (6 units)

PHYS 5C General Physics (Calculus) Extended (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 TECHNOLOGY

Program Type(s):

A.A. Degree; Certificate of Achievement

May be transferable to a four-year university.

Units required for major: 90, certificate(s): 31.5–36

Program Learning Outcomes

- Students who complete the traditional transfer course sequence will be able to demonstrate knowledge, skills, and understanding in the three emphases identified by the National Association of Schools of Music (NASM): music history/literature, composition/theory, and performance.
- Students who complete the vocational program will also be able to demonstrate knowledge, skills and understanding in the areas of music business, technology, and contemporary popular music literature and composition/engineering identified by the program's board of advisors.

Associate Degree Requirements *

Core Courses: (31.5 units)

MUS 11A Jazz & Swing (4 units)

or MUS 11B Funk, Fusion & Hip-Hop (4 units)

MUS 50A Music Business (4 units)

or MUS 50B Entertainment Law & New Media (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 85A Music & Media: Edison to Hendrix (4 units)

or MUS 85B Music & Media: Hendrix to Hip-Hop (4 units)

Support Courses: (12 units)

FA 1 Introduction to Popular Culture (4 units)

FA 2 Popular Culture & U.S. History (4 units)

GID 80 Digital Sound, Video & Animation (4 units)

MUS 11A Jazz & Swing (4 units)

MUS 11B Funk, Fusion & Hip-Hop (4 units)

MUS 11C Salsa & Latin Jazz (4 units)

MUS 35A Special Projects in Music (2 units)

MUS 35B Special Projects in Music Technology (2 units)

MUS 41 Live Music Performance Workshop (2 units)

MUS 50B Entertainment Law & New Media (4 units)

MUS 58A Songwriter's Workshop I (4 units)

MUS 58B Songwriter's Workshop II (4 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 66A Introduction to Digital Audio: Pro Tools (4 units)

MUS 66B Introduction to Digital Audio: Reason & Pro Tools (4 units)

MUS 66C Introduction to Digital Audio: Live, Reason & Pro Tools (4 units)

MUS 80A Recording Studio Basics (4 units)

MUS 81B Sound Design for Film & Video (3.5 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, MATH 17, 105 or 108.

MUS 81D Pro Tools & Plug-Ins I (4 units)
 MUS 81E Pro Tools & Plug-Ins II
 MUS 82A Pro Tools 101: Introduction to Pro Tools (4 units)
 MUS 82B Pro Tools 110: Pro Tools Production I (4 units)
 MUS 82C Pro Tools 201: Pro Tools Production II (4 units)
 MUS 82D Pro Tools 210M: Music Production Techniques (4 units)
 MUS 85A Music & Media: Edison to Hendrix (4 units)
 MUS 85B Music & Media: Hendrix to Hip-Hop (4 units)
 RAD 80 Fundamentals of Radio Operation & Station Operation (3 units)
 RAD 81 History of Radio 1920–Present (4 units)
 RAD 90A News & Information Production I (3 units)
 or RAD 90B News & Information Production II (3 units)
 or RAD 90C News & Information Production III (3 units)
 or RAD 90D News & Information Production IV (3 units)
 RAD 92A Radio Programming & Production I (3 units)
 or RAD 92B Radio Programming & Production II (3 units)
 or RAD 92C Radio Programming & Production III (3 units)
 or RAD 92D Radio Programming & Production IV (3 units)

Certificate of Achievement in Music Technology (31.5 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 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: Pro Tools Production I (4 units)
 MUS 82C Pro Tools 201: Pro Tools Production II (4 units)
 MUS 82D Pro Tools 210M: Music Production Techniques (4 units)

MUSIC: GENERAL

Program Type(s):

A.A. Degree

Units required for major: 90

Program Learning Outcomes

- Through the study of music history/literature, students examine music masterpieces from multiple eras and cultures, synthesizing information and making judgments as they evaluate how music reflects individual composers' lives as well as the contemporary social/historical context in which the compositions were created and performed.
- Through music theory/composition, students analyze the structure of music and learn to create their own original works satisfying specific and complex compositional requirements.
- Through music performance, students learn how to apply and express their historical, theoretical, and artistic understandings in a presentation addressing an appropriate audience.
- Using this three-lens framework, students increase their community/global consciousness as they learn to appreciate how music is a potent tool for understanding individual and cultural uniqueness within the larger context of our common humanity.

Associate Degree Requirements *

Core Courses: (31 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 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)

Support Courses: (12 units)

Select 8 units from the following:

MUS 1 Introduction to Music (4 units)
 MUS 7 Contemporary Music Styles: Rock, Pop & Jazz (4 units)
 or MUS 7D Contemporary Music Styles: The Beatles in the Culture of Popular Music (4 units)
 or MUS 7E History of the Blues (4 units)
 MUS 8 Music of Multicultural America (4 units)
 or MUS 8H Honors Music of Multicultural America (4 units)
 MUS 10 Music Fundamentals (4 units)
 MUS 12A Beginning Class Piano (2 units)
 MUS 13A Class Voice I (1 unit)
 MUS 14A Beginning Classical Guitar (2 units)
 MUS 15A Beginning Folk Guitar (2 units)
 MUS 27 Symphony & Concerto (4 units)
 MUS 35A Special Projects in Music (2 units)

And 4 units from the following:

MUS 1 Introduction to Music (4 units)
 MUS 7 Contemporary Music Styles: Rock, Pop & Jazz (4 units)
 or MUS 7D Contemporary Music Styles: The Beatles in the Culture of Popular Music (4 units)
 or MUS 7E History of the Blues (4 units)
 MUS 12A Beginning Class Piano (2 units)
 MUS 13A Class Voice I (1 unit)
 MUS 14A Beginning Classical Guitar (2 units)
 MUS 15A Beginning Folk Guitar (2 units)
 MUSP 40 Symphony Orchestra (2 units)

NANOSCIENCE

Program Type(s):

A.S. Degree; Certificate of Achievement; Certificate of Proficiency

Units required for major: 90, certificate(s): 15–25

Program Learning Outcomes

- Technicians will apply foundational nanoscience principles to understanding and further learning about nanostructures, properties, and engineering solutions (read and apply literature, seminars, and webinars). Demonstrate through written assignments (diagrams etc.), term papers, and class presentations. Use PNPA as a way to read and learn from technical writing articles.

*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, MATH 17, 105 or 108.

- Technicians will develop effective engineering plans for developing materials engineering solutions for industrial applications (using PNPA). These include applying characterization skills to elucidating structure property relationships, process optimization (for desired properties) and consistent material manufacturing. Demonstrate through term projects (diagrams etc.), engineering lab experiments, and class presentations.
- Technicians will support fundamental R&D, process development, characterization (including QA/QC FA etc.) and consistent/good manufacturing practice (in all sizes of high-technology firms). Demonstrate through internship and work experience.

Associate Degree Requirements *

Core Courses: (55–68 units)

Nanoscience Transfer Option (68 units)

CHEM 1A General Chemistry (5 units)

CHEM 1B General Chemistry (5 units)

CHEM 1C General Chemistry & Qualitative Analysis (5 units)

NANO 51 Applications of 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)

PHYS 4B General Physics (Calculus) (6 units)

PHYS 4C General Physics (Calculus) (6 units)

Or^[37]

PHYS 5A General Physics (Calculus) Extended (6 units)

PHYS 5B General Physics (Calculus) Extended (6 units)

PHYS 5C General Physics (Calculus) Extended (6 units)

PHYS 4C General Physics (Calculus) (6 units)

And 15 units from the following:

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 Nanomaterials & Nanoscience (5 units)

NANO 53 Nanomaterials Characterization (5 units)

NANO 54 Nanofabrication Tools & Process (5 units)

Nanoscience Option (55 units)

NANO 51 Applications of Nanotechnology (5 units)

NANO 52 Nanomaterials & Nanostructures (5 units)

NANO 53 Nanomaterials Characterization (5 units)

NANO 54 Nanofabrication Tools & Process (5 units)

NANO 61 Micro & Nano Fabrication Techniques Capstone (5 units)

PHYS 2A General Physics (5 units)^[38]

PHYS 2B General Physics (5 units)

PHYS 2C General Physics (5 units)

[37] The PHYS 5A, 5B & 5C sequence is equivalent to PHYS 4A & 4B.

[38] PHYS 2A is recommended if the student is preparing to transfer to a four-year institution.

*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, MATH 17, 105 or 108.

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Support Courses: (10 units)

ENGR 45 Properties of Materials (5 units)

NANO 50 Introduction to Nanotechnology (5 units)

Certificate information

Provides pathways to UC Santa Cruz engineering program; developed in concert with academic and industry internships.

Certificate of Achievement: Nanoscience (25 units)

ENGR 45 Properties of Materials (5 units)

NANO 51 Applications of Nanotechnology (5 units)

NANO 52 Nanostructures & Nanomaterials (5 units)

NANO 53 Nanomaterials Characterization (5 units)

NANO 54 Nanofabrication Tools & Process (5 units)

Certificate of Proficiency: Nanocharacterization (15 units)

Non-transcriptable

NANO 51 Applications of Nanotechnology (5 units)

NANO 52 Nanostructures & Nanomaterials (5 units)

NANO 53 Nanomaterials Characterization (5 units)

Certificate of Proficiency: Nanofabrication (15 units)

Non-transcriptable

NANO 51 Applications of Nanotechnology (5 units)

NANO 52 Nanostructures & Nanomaterials (5 units)

NANO 54 Nanofabrication Tools & Process (5 units)

NON-CREDIT: GERIATRIC HOME AIDE

Program Type(s):

Certificate of Completion

Program Learning Outcomes

- For information, call the Non-Credit Program at (650) 949-6950.

Certificate of Completion: Geriatric Home Aide (104 hours)

NCSV 400 Geriatric Home Aide Basics (60 Hours)

NCSV 401 Geriatric Home Aide–Nutrition (44 Hours)

NON-CREDIT: JOB READINESS

Program Type(s):

Certificate of Completion

Program Learning Outcomes

- For information, call the Non-Credit Program at (650) 949-6950.

Certificate of Completion: Job Readiness (67 Hours)

NCWP 400 Blueprint for Work Force 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)

NON-CREDIT: MATHEMATICAL FOUNDATIONS

Program Type(s):

Certificate of Completion

Program Learning Outcomes

- For information, call the Non-Credit Program at (650) 949-6950.

Certificate of Completion: Mathematical Foundations (60 hours)

NCBS 401A Mathematical Foundations for College Part I (20 hours)

NCBS 401B Mathematical Foundations for College Part II (40 hours)

PARAMEDIC

Program Type(s):

A.S. Degree; Certificate of Achievement

Units required for major: 135.5, certificate: 85.5

Program Learning Outcomes

- The graduate will be a paramedic with outstanding clinical abilities who will provide a high level of compassionate patient care that is thoughtful and intelligent in its approach.
- Graduates will perform as competent, entry-level EMT-Paramedics.

Associate Degree Requirements *

An optional associate degree is available upon completion of the certificate requirements and the Foothill College general education requirements.

Certificate of Achievement

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

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 IIIB (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)

Fall Quarter

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 IIIB (8.5 units)

Summer Session

EMTP 63B Mobile Intensive Care Paramedic Program: Hospital Emergency Department Rotations (5 units)

Fall Quarter

EMTP 64A Mobile Intensive Care Paramedic Program: Ambulance Field Internship (9.5 units)

Winter Quarter

EMTP 64B Mobile Intensive Care Paramedic Program: Ambulance Field Internship (9.5 units)

PHARMACY TECHNICIAN

Program Type(s):

A.S. Degree; Certificate of Achievement

Units required for major: 90, certificate(s): 52

Program Learning Outcomes

- Students will demonstrate pharmaceutical knowledge, clinical skills and values necessary to practice as a competent pharmacy technician in both retail and hospital pharmacy settings.
- Graduates will demonstrate competency with entry-level clinical skills in accordance with ASHP accreditation requirements.

Associate Degree Requirements *

Core Courses: (52 units)

Fall Quarter

PHT 50 Orientation to Pharmacy Technology (3 units)

PHT 51 Basic Pharmaceuticals (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)

Certificate of Achievement: (52 units)

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

PHILOSOPHY

Program Type(s):

A.A. Degree

Units required for major: 90

Program Learning Outcomes

- Students will be able to critically analyze and evaluate arguments regarding issues of metaphysics and epistemology.
- Students will be able to critically analyze and evaluate arguments regarding issues of ethics and political philosophy.

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 one course from the following:

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: (16 units)

Select 8 units from the following:^[39]

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)
PHIL 56–56Z Special Study in Philosophy (1–4 units)

And 8 units from the following:

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)
HIST 4B History of Western Civilization: 700–1800 (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)
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)

PHOTOGRAPHY

Program Type(s):

A.A. Degree; Certificate of Achievement; Skills Certificate

Units required for major: 90, certificate(s): 12–40

Program Learning Outcomes

- The student will be able to produce images that demonstrate knowledge of photography's visual and expressive elements (light, color and composition), using standard professional equipment and production processes.
- Students will be able to analyze how images reflect and shape our culture and assess the contributions made in the field by people from diverse cultures and backgrounds.

[39] Students may also use courses listed in the first section of support courses to fulfill the requirement for the second section of support courses.

Associate Degree Requirements *

Core Courses: (36 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)
PHOT 72 Digital Camera Technique (4 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 Photography (12 units)

PHOT 65B Digital Photography II (4 units)
PHOT 65C Digital Photography III (4 units)
PHOT 71 The Photographic Book (4 units)

Support Courses: (4 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 8H 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)
PHOT 71 The Photographic Book (4 units)
PHOT 72 Digital Camera Technique (4 units)

PHOT 74 Studio Photography Techniques (4 units)
PHOT 78A Landscape Field Study in Photography (1 unit)
PHOT 78B Social Concerns Field Study in Photography (1 unit)
PHOT 78C Documentary Field Study in Photography (1 unit)
PHOT 78D Museum/Gallery Field Study in Photography (1 unit)
PHOT 78E Techniques Field Study in Photography (1 unit)
PHOT 150X Photography Production Laboratory (1 unit)^[40]
PHOT 180 Photographic Practices (1 unit)^[41]
PHOT 190–190Z Directed Study (.5–3 units)^[42]
ART 5A Basic Two-Dimensional Design (4 units)
ART 6 Collage & Composition (3 units)
ART 20A Color (3 units)

Certificate of Achievement Traditional Photography I or Digital Photography I (40 units)

Awarded upon completion of the core courses including option #1 or #2 and support courses. General education courses are not required.

Certificate of Achievement: Traditional Photography II^[43] (30 units)

PHOT 1 Black & White Photography I (4 units)
PHOT 2 Black & White Photography II (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)
PHOT 72 Digital Camera Techniques (4 units)

Certificate of Achievement: Digital Photography II^[44] (30 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)
PHOT 65B Digital Photography II (4 units)
PHOT 65C Digital Photography III (4 units)
PHOT 71 The Photographic Book (4 units)
PHOT 72 Digital Camera Techniques (4 units)

Skills Certificate: Photographic Laboratory Technician^[45] (15.5 units) Non-transcriptable

PHOT 1 Black & White Photography I (4 units)
PHOT 2 Black & White Photography II (4 units)
PHOT 70 Introduction to Color Photography (4 units)
or PHOT 50 Black & White Photography III (4 units)
PHOT 150X Photography Production Laboratory (1 unit)
PHOT 180 Photographic Practices (.5 unit)
or equivalent

[40] Maximum of 3 units of laboratory may be used toward a degree or certificate.

[41] Maximum of 3 units of laboratory may be used toward a degree or certificate.

[42] Maximum of 3 units of laboratory may be used toward a degree or certificate.

[43] And 2 units from the support list above.

[44] And 2 units from the support list above.

[45] Plus 50 hours of work experience verified by employer or volunteer supervisor.

*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, MATH 17, 105 or 108.

Skills Certificate: Photo Criticism (12 units) Non-transcriptable

PHOT 5 Introduction to Photography (4 units)

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

And

PHOT 8 Photography of Multicultural America (4 units)
or PHOT 8H Honors Photography of Multicultural America (4 units)
or PHOT 11 Contemporary Issues in Photography (4 units)
or PHOT 11H Honors Contemporary Issues in Photography (4 units)

PHYSICAL EDUCATION

Program Type(s):

A.A. Degree

Units required for major: 90

Program Learning Outcomes

- A successful student will complete this program with the ability to communicate the components of a physical education program to their professional staff.
- A successful student will demonstrate the necessary knowledge, skills, and values of a multidisciplinary program, which satisfy core requirements for many physical education transfer majors, including the traditional concentrations in teaching and contemporary choices of fitness, dance and athletic emphasis.

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)
or DANC 10 Topics in Dance History (4 units)

PHED 67B Emergency Athletic Injury Care (3 units)

BIOL 10 General Biology: Basic Principles (5 units)
or 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 Physical Education (PHED) activity courses or DANC courses.

Support 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 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)
or CHEM 30A Survey of Inorganic & Organic Chemistry (5 units)

PHED 9 Basic Nutrition for Sports & Fitness (4 units)

PSYC 1 General Psychology (5 units)

DANC 10 Topics in Dance History (4 units)

PHYSICS

Program Type(s):

A.S. Degree

Units required for major: 90

Program Learning Outcomes

- Students know basic physics principles.
- Students can apply their knowledge to practical, theoretical and experimental problems.
- Students are prepared to advance to the next step in careers in science, industry and education.

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)

PHYS 5A General Physics (Calculus) Extended (6 units)^[46]

PHYS 5B General Physics (Calculus) Extended (6 units)

PHYS 5C General Physics (Calculus) Extended (6 units)

POLITICAL SCIENCE

Program Type(s):

A.A. Degree

Units required for major: 90

Program Learning Outcomes

- Students will be able to demonstrate critical, analytical, research and writing skills in political science and its sub-fields using basic scientific tools underlying modern social science.
- Students will be able to analyze the major theoretical formulations and concepts of political science and its sub-fields and the philosophical basis of those formulations.

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

[46] The PHYS 5A, 5B & 5C sequence is equivalent to PHYS 4A & 4B.

Support Courses: (17 units)

Select 9 units from the following:

- ECON 1A Principles of Macroeconomics (5 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)
or HIST 17B History of the United States from 1812 to 1914 (4 units)
or HIST 17C History of the United States 1900 to the Present (4 units)
- POLI 9 Political Economy (4 units)
or POLI 9H Honors Political Economy (4 units)

And 8 units from the following:^[47]

- ECON 25 Introduction to the Global Economy (4 units)
- HIST 8 History of Latin America (4 units)
- HIST 18 Introduction to Middle Eastern Civilization (4 units)
- HIST 20 History of Russia & The Soviet Union (4 units)
- PHIL 2 Introduction to Social & Political Philosophy (4 units)
- SOC 15 Law & Society (4 units)

POPULAR CULTURE

Program Type(s):

Certificate of Proficiency

Program Learning Outcomes

- Develop the critical thinking skills necessary to interpret and analyze the values, assumptions, and constituent cultural/sociological phenomena housed within—and underneath—its ubiquitous presence.
- Analyze the relationship between a commodity culture and intellect/ artistry.
- Evaluate the role of popular culture in indoctrination/social control.

Certificate of Proficiency in Popular Culture (16 units)

Non-transcriptable

Required:

- F A 1 Introduction to Popular Culture (4 units)
- F A 2 Popular Culture & U. S. History (4 units)
- SOC 8 Popular Culture (4 units)

And 4 units from the following:

- 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)
- GID 1 History of Graphic Design (4 units)
- MUS 7 Contemporary Musical Styles: Rock, Pop & Jazz (4 units)
- MUS 85A Music & Media: Edison to Hendrix (4 units)
or MUS 85B Music & Media: Hendrix to Hip-Hop (4 units)
- PHED 2 Sport in Society (4 units)
- VART 2C Current Trends in Film, TV & Internet (4 units)
- VART 3 American Cinema (4 units)

[47] Students may also use courses listed in the first section of support courses to fulfill the requirement for the second section of support courses.

PRIMARY CARE ASSOCIATE PROGRAM

Program Type(s):

A.S. Degree; Certificate of Achievement

Units required for major: 127.5, certificate: 97.5

Program Learning Outcomes

- The student will demonstrate competency in skills required to provide primary care health services as a physician assistant, with physician supervision.
- The student will demonstrate knowledge of national and state regulations for the practice of the physician assistant profession.

Associate Degree Requirements *

Core Courses: (97.5 units)

Spring Quarter

PCA 50 Orientation to Primary Care Associate Program (1 unit)^[48]

Summer Session

- PCA 51A Basic Science/Microbiology/Infectious Disease (2 units)
- PCA 52A Anatomy/Physiology/Pathophysiology I (5 units)
- PCA 53A Pharmacology I (3 units)
- PCA 54A Pre-Clinical I (3 units)
- PCA 55A Professionalism/Cultural Medicine I (1 unit)
- PCA 56A Core Medicine I (6 units)

Fall Quarter

- PCA 52B Anatomy/Physiology/Pathophysiology II (5 units)
- PCA 53B Pharmacology II (3 units)
- PCA 54B Pre-Clinical II (3 units)
- PCA 55B Professionalism/Cultural Medicine II (0.5 units)
- PCA 56B Core Medicine II (8.5 units)

Winter Quarter

- PCA 54C Pre-Clinical III (4 units)
- PCA 55C Professionalism/Cultural Medicine III (0.5 units)
- PCA 56C Core Medicine III (9 units)
- PCA 60A Preceptorship I (4 units)

Spring Quarter

- PCA 54D Pre-Clinical IV (1 unit)
- PCA 56D Core Medicine IV (5 units)
- PCA 60B Preceptorship II (6 units)

Summer Session

- PCA 56E Core Medicine V (1.5 units)
- PCA 60C Preceptorship III (7 units)

Fall Quarter

- PCA 56F Core Medicine VI (1.5 units)
- PCA 60D Preceptorship IV (7 units)

Winter Quarter

- PCA 55D Professionalism/Cultural Medicine IV (3 units)
- PCA 56G Core Medicine VII (2 units)
- PCA 60E Preceptorship V (6 units)

[48] PCA 50 is not part of the certification of proficiency. It does not prepare the student for the Physician Assistant National Certification Examination (PANCE).

*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, MATH 17, 105 or 108.

Certificate of Achievement

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

PSYCHOLOGY

Program Type(s):

A.A. Degree

Units required for major: 90

Program Learning Outcomes

- Students will be able to recognize the diversity of behavior of various populations and be able to explain, interpret, apply, and evaluate a broad base of concepts in the different fields of psychology.
- Students will be able to apply critical thinking skills and psychological theories to real-world situations, and be able to apply research methodology and data analysis in the process of answering questions about human behavior.

Associate Degree Requirements *

Core Courses: (25 units)

Required:

PSYC 1 General Psychology (5 units)

And 20 units from the following:

MATH 10 Elementary Statistics (5 units)

PSYC 4 Introduction to Biopsychology (4 units)

PSYC 10 Introduction to Social Research (5 units)

PSYC 14 Childhood & Adolescence (4 units)

PSYC 21 Psychology of Women: Sex & Gender Differences (4 units)

or SOC 21 Psychology of Women: Sex & Gender Differences (4 units)

or WMN 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)

Support Courses: (8 units)^[49]

ANTH 2A Cultural Anthropology (4 units)

BIOL 14 Human Biology (5 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)

SPED 62 Psychological Aspects of Disability (4 units)

WMN 5 Introduction to Women's Studies (4 units)

RADIO BROADCASTING

Program Type(s):

A.A. Degree; Certificate of Achievement; Skills Certificate

Units required for major: 90, certificate(s): 17.5–37

Program Learning Outcomes

- Students will demonstrate ability to perform the functions of a live in-studio radio program, including but not limited to engineering, FCC log completion and announcing.
- Students will demonstrate ability to script, voice, record and edit spot announcements.

Associate Degree Requirements *

Core Courses: (22 units)

RAD 80 Fundamentals of Radio Production & Station Operation (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)

MUS 1 Introduction to Music (4 units)

MUS 7 Contemporary Musical Styles: Rock, Pop & Jazz (4 units)

MUS 7D Contemporary Musical 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)

or MUS 8H Honors Music of Multicultural America (4 units)

MUS 80A Recording Studio Basics (4 units)

RAD 70 Special Projects in Radio (1 unit)

RAD 190X Directed Study (1 unit)

[49] Students may also use courses listed as core courses for support courses.

*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, MATH 17, 105 or 108.

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 Management Seminar (.5 unit)
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 Special Projects in Radio (1 unit)
RAD 190X Directed Study (1 unit)

Certificate of Achievement (37 units) Non-transcriptable

Awarded upon completion of the core and support courses from one emphasis. 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)
And 8 units from one area of emphasis.

Broadcast Business Sales Skills Certificate (17.5 units) Non-transcriptable

ACTG 1A Financial Accounting I (5 units)
ADVT 57 Principals of Advertising (4 units)
or BUSI 57 Principals of Advertising (4 units)
BUSI 59 Principles of Marketing (4 units)
BUSI 97 Management Seminar (.5 unit)
CIS (one 4–unit CIS course) (4 units)

RADIOLOGIC TECHNOLOGY

Program Type(s):

A.S. Degree

Units required for major: 130.5

Program Learning Outcomes

- Graduates will demonstrate entry-level competency skills in accordance with national and state regulatory agencies.
- Graduates will value and implement proper radiation safety for patients, self and others.

Associate Degree Requirements *

Core Courses: (100.5 units)^[50]

FIRST YEAR

Summer Session

R T 50 Orientation to Radiation Science Technologies (2 units)
R T 53 Orientation to Radiologic Technology (1 unit)

Fall Quarter

R T 54A Basic Patient Care for Imaging Technology (2 units)
R T 51A Fundamentals of Radiologic Technology I (3 units)
R T 52A Principles of Radiologic Technology I (3 units)
R T 53A Applied Radiographic Technology I (3 units)
R T 53AL Applied Radiographic Technology Laboratory I (1 unit)

Winter Quarter

R T 54B Law & Ethics in Medical Imaging (2 units)
R T 51B Fundamentals of Radiologic Technology II (3 units)
R T 52B Principles of Radiologic Technology II (3 units)
R T 53B Applied Radiologic Technology II (3 units)
R T 53BL Applied Radiologic Technology Laboratory II (1 unit)

Spring Quarter

R T 51C Fundamentals of Radiologic Technology III (3 units)
R T 52C Principles of Radiologic Technology III (3 units)
R T 53C Applied Radiologic Technology III (3 units)
R T 53CL Applied Radiologic Technology Laboratory III (1 unit)
R T 54C Radiographic Pathology (3 units)
PSYC 1 General Psychology (5 units)

Summer Session (8 weeks)

R T 72 Venipuncture (2 units)
R T 64 Fluoroscopy (4.5 units)
R T 53D Applied Radiologic Technology IV (8 units)

Second Year

Fall Quarter

R T 62A Advanced Modalities in Imaging (3 units)
R T 63A Radiographic Clinical Practicum I (7.5 units)
R T 52D Digital Image Acquisition & Display (2.5 units)

[50] All courses must be completed in sequence with a grade of C or better.

*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, MATH 17, 105 or 108.

Winter Quarter

R T 62B Special Procedures & Equipment (3 units)
R T 63B Radiographic Clinical Practicum II (7.5 units)
R T 65 Mammography (3 units)

Spring Quarter

R T 61B Radiology Research Project (1 unit)
R T 62C Professional Development in Radiology (3 units)
R T 63 Advanced Radiographic Principles (3 units)
R T 63C Radiographic Clinical Practicum III (7.5 units)

REAL ESTATE

Program Type(s):

A.A. Degree; Certificate of Achievement; Career Certificate

Units required for major: 29, certificate(s): 12–29

Program Learning Outcomes

- Explain the functions of real estate markets, real estate practices, and real estate institutions, and recommend choices for common real estate situations.
- Demonstrate how to calculate the time value of money and evaluate various financing alternatives for real estate investment strategies.
- Evaluate real estate development opportunities in the commercial real estate markets for residential, warehouse, retail and industrial properties.
- Research and analyze specific case problems related to real estate investment and present solutions.

Associate Degree Requirements *

Core Courses: (29 units)

BUSI 18 Business Law I (5 units)
R E 50 Real Estate Principles (4 units)
R E 51 Real Estate Practices (4 units)
R E 52A Legal Aspects of Real Estate I (4 units)
R E 53 Real Estate Finance (4 units)
R E 54 Real Estate Economics (4 units)
R E 59 Survey of Real Estate Property Management (4 units)

Real Estate Broker Certificate of Achievement (29 units)

Awarded upon completion of the 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.

Select one course from the following:

R E 50 Real Estate Principles (4 units)
R E 51 Real Estate Practices (4 units)

And 8 units from the following:

BUSI 18 Business Law I (5 units)
R E 52A Legal Aspects of Real Estate I (4 units)
R E 53 Real Estate Finance (4 units)
R E 54 Real Estate Economics (4 units)
R E 59 Survey of Real Estate Property Management (4 units)

RESPIRATORY THERAPY

Program Type(s):

A.S. Degree

Units required for major: 135.5

Program Learning Outcomes

- The student will have acquired the necessary knowledge, skills and values for the practice of respiratory therapy.
- Students will be able to demonstrate appropriate critical thinking skills, time management skills, communication skills and technical skills necessary to provide competent respiratory care in multidisciplinary care settings.

Associate Degree Requirements *

Core Courses: (105.5 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 (2 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 Perinatal Respiratory Care (3 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)

*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, MATH 17, 105 or 108.

RSPT 61D Pediatric 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)

SOCIOLOGY

Program Type(s):

A.A. Degree; Certificate of Specialization

Units required for major: 90, certificate(s): 13–26

Program Learning Outcomes

- Students will be able to demonstrate a working knowledge of the core concepts of sociology (social structure; culture; social stratification and inequality; race, ethnicity and gender; and globalization).
- Students will be able to apply their understanding of sociology to their professional, personal and civic lives.

Associate Degree Requirements *

Core Courses: (17 units)

Required Course (5 units)

SOC 1 Introduction to Sociology (5 units)

And 12 units from the following:

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)
CHLD 11 Affirming Diversity in Education (4 units)
CHLD 88 Child, Family & Community (4 units)
ECON 1A Principles of Macroeconomics (5 units)
ECON 9 Political Economy (4 units)
GEOG 2 Human Geography (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 10 History of California: The Multicultural State (4 units)
HIST 15 History of Mexico (4 units)
HIST 17C History of the United States from 1900 to the Present (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)
or PSYC 21 Psychology of Women: Sex & Gender Differences (4 units)

Certificate of Specialization in Sociology–Social Welfare (26 units) Non-transcriptable Required Courses (9 units)

SOC 11 Introduction to Social Welfare (5 units)
SOC 19 Alcohol & Drug Abuse (4 units)

And 12 units from the following:

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)

And 5 units from the following:

BUSI 18 Business Law I (5 units)
CHLD 11 Affirming Diversity in Education (4 units)
CHLD 88 Child, Family & Community (4 units)
COMM 12 Intercultural Communication (5 units)
HLTH 21 Health Education (3 units)
PSYC 22 Psychology of Prejudice (4 units)
SOC 30 Social Psychology (4 units)
SOSC 36 Special Projects in Social Science (1 unit)
WMN 5 Introduction to Women's Studies (4 units)

Certificate of Specialization in General Sociology (13 units) Non-transcriptable Required Course (5 units)

SOC 1 Introduction to Sociology (5 units)

And 4 units from the following:

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)

And 4 units from the following:

ANTH 2A Cultural Anthropology (4 units)
CHLD 11 Affirming Diversity in Education (4 units)
CHLD 88 Child, Family & Community (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, MATH 17, 105 or 108.

ECON 1A Principles of Macroeconomics (5 units)
 GEOG 2 Human Geography (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 10 History of California: The Multicultural State (4 units)
 HIST 15 History of Mexico (4 units)
 HIST 17C History of the United States from 1900 to the Present (4 units)
 MATH 10 Elementary Statistics (5 units)
 PHIL 1 Critical Thinking & Writing (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)
 or PSYC 21 Psychology of Women: Sex & Gender Differences (4 units)

SPANISH

Program Type(s):

A.A. Degree; Certificate of Proficiency; Career Certificate

Units required for major: 90, certificate(s): 12–30

Program Learning Outcomes

- The student will be able to communicate with native speakers of Spanish, using the appropriate language for any given situation.
- The student will, by presenting research, demonstrate knowledge of Hispanic society, culture and politics.

Associate Degree Requirements *

Core Courses: (30 units)^[51]

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)

Career Certificate in Spanish Language (30 units)

Non-transcriptable

Select 30 units from the following:^[52]

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)
 SPAN 13A Intermediate Conversation I (4 units)
 SPAN 13B Intermediate Conversation II (4 units)

[51] Students who can demonstrate proficiency equivalent to one 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.

[52] Students who can demonstrate proficiency equivalent to one 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.

Certificate of Proficiency in Spanish Conversation^[53] (16 units) Non-transcriptable

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)

Certificate of Specialization in Spanish Language^[54] (15 units) Non-transcriptable

SPAN 1 Elementary Spanish I (5 units)
 SPAN 2 Elementary Spanish II (5 units)
 SPAN 3 Elementary Spanish III (5 units)

SPECIAL EDUCATION

Program Type(s):

A.A. Degree; Certificate of Achievement

Units required for major: 90, certificate(s): 27

Program Learning Outcomes

- The student will demonstrate basic technologies and assessment tools appropriate to individuals with disabilities.
- The student will be able to confidently identify persons with disabilities and assess their needs.
- The student will be able to recognize and respect the difference in the roles of teachers, other professional practitioners and para-educators.
- The student will be able to practice the standards of professional and ethical conduct approved by the local educational agency and/or place of employment.
- The graduate will be able to prepare and organize materials to support instruction and learning as directed.

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 8 Basic Nutrition (5 units)
 BIOL 14 Human Biology (5 units)
 BIOL 45 Introduction to Human Nutrition (4 units)
 COMM 2 Interpersonal Communication (5 units)
 COMM 4 Group Discussions (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)

[53] 8 units must be completed in residence at Foothill College.

[54] 10 units must be completed in residence at Foothill College.

*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, MATH 17, 105 or 108.

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)
 Recommended
 SPED 72 Stress, Wellness & Coping (3 units)
 SPED 73 Introduction to Aquatic Exercise (3 units)
 SPED 74 Principles of Adaptive Aqua Fitness (3 units)

Special Education Paraprofessional Certificate of Achievement (27 units)

Certificate is awarded upon completion of the core courses. General education courses are not required.

THEATRE ARTS

Program Type(s):

A.A. Degree; Certificate of Proficiency; Career Certificate

Units required for major: 90, certificate(s): 78–98

Program Learning Outcomes

- Intended Program Outcome 1: With the skill sets developed from successful completion of our training programs, students will be able to seamlessly and integrally contribute to any further educational or work force experience in their prescribed area of the performing arts with minimal fundamental adjustment period. Matriculating students will be able to critically assess his or her role in prescribed performing arts circumstance and promote its furtherance appropriately with creative solutions.
- Intended Program Outcome 2: Students will progress and be able to employ skill sets of collaboration relevant to multiple arenas of alliance or teamwork. The matchless demands of developing collaborative art provides students germane insights applicable to interpreting personal dynamics in conjunction with content assessment, promoting students' engagement skills of unique perspective and critical assessment.

Associate Degree Requirements *

Core Courses: (36 units)

Required Courses (12 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 31 Fundamentals of Stage Management (2 units)

Master Courses (24 units)^[55]

THTR 1 Theatre Arts Appreciation (4 units)
 THTR 5B Playwriting (4 units)
 THTR 7 Introduction to Directing (4 units)
 THTR 8 Multicultural Performing Arts in Modern America (4 units)
 THTR 20A Acting I (4 units)
 THTR 20B Acting II (4 units)

[55] Many master courses are offered through the Foothill Theatre Conservatory certification program requiring corequisite classes and are 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. These courses may also be used as electives upon completion of the requisite master courses.

THTR 20C Acting III (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 22 Auditioning for Theatre (2 units)
 THTR 23, X Acting for Film & Television (2-4 units)
 THTR 25 Introduction to Fashion & Costume Construction (4 units)
 THTR 26 Introduction to Fashion History & Costume Design (4 units)
 THTR 31L Theatre Production Management Laboratory (2 units)
 THTR 38 Movement Practicum for the Actor (2 units)
 THTR 38D Movement for the Actor: Stage Combat (1 unit)
 THTR 40A Basic Theatrical Make-up (4 units)
 THTR 40B Theatrical Make-up for Production (4 units)
 THTR 43A Foundations in Realistic Acting (4 units)
 THTR 43B Contemporary Methodologies in Acting (4 units)
 THTR 43C Foundations in Classical Acting (4 units)
 THTR 43D Foundations on Comic Styles (4 units)
 THTR 43E Improvisation (4 units)
 THTR 43G Actor Marketing Strategies (2 units)
 THTR 48 Voice Practicum for the Actor (2 units)
 THTR 54 Actor's Workshop (4 units)
 THTR 63A Film & Television Acting Workshop (4 units)
 THTR 63B Film & Television Acting Career Preparation (2 units)
 THTR 81 Contemporary Issues in Performance Seminar (1 unit)

Support Courses: (16 units)

Select 12 units from the following:

THTR 44 Production Projects (4 units)
 THTR 47, 47X Music Theatre Production Workshop (2–6 units)
 THTR 49–97Y Rehearsal & Performance (2–6 units)
 THTR 50 Production Projects in Theatre (2 units)
 THTR 95X Theatre Summer Stock Workshop (7 units)

And 4 units from the following:^[56]

THTR 6 Advanced Playwriting (4 units)
 THTR 21B Intermediate Scenery & Property Construction (3 units)
 THTR 21C Advanced Scenery & Property Construction (3 units)
 THTR 42 Introduction to Scene Design (4 units)
 THTR 55 Special Projects in Theatre (2 units)
 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, Theatre Workshop (2–6 units)
 DANC 9 Movement for Actors (2 units)
 MUS 13A Class Voice I (1 unit)

[56] Students may also use courses listed in the core courses or first section of support courses to fulfill the requirement for the second section of support courses.

*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, MATH 17, 105 or 108.

Foothill Theatre Conservatory Certificate of Proficiency (98 units) Non-transcriptable

Awarded upon successful completion of the Foothill Theatre Conservatory program:

Core Courses (12 units)

Master Courses (72 units)

Support Courses (14 units)

Foothill Theatre Conservatory Certificate of Achievement (78 units)

Awarded upon successful completion of the Foothill Theatre Conservatory program:

Core Courses (12 units)

Master Courses (58 units)

Support Courses (8 units)

THEATRE TECHNOLOGY

Program Type(s):

A.A. Degree; Certificate of Achievement; Career Certificate

Units required for major: 90, certificate(s): 22–36

Program Learning Outcomes

- With the skill sets developed from successful completion of our training programs, students will be able to seamlessly and integrally contribute to any further educational or work force experience in their prescribed area of the performing arts with minimal fundamental adjustment period. A matriculating student will be able to critically assess his or her role in prescribed technical production areas with respect to further educational or work force experience or continued advanced training.
- Students will progress and be able to employ skill sets of collaboration relevant to multiple arenas of alliance or teamwork. The matchless demands of developing collaborative art provide students important and relevant insights applicable to interpreting personal dynamics in conjunction with content assessment.
- Students will develop skills for evaluating their own and others contributions to successful outcomes in a high-pressure, collaborative environment.

Associate Degree Requirements *

Core Courses: (22 units)

THTR 1 Theatre Arts Appreciation (4 units)

or THTR 8 Multicultural Performing Arts in Modern America (4 units)

THTR 20A Acting I (4 units)

THTR 21 Introduction to Technical Theatre (1 unit)

THTR 21A Scenery & Property Construction (3 units)

THTR 25 Introduction to Fashion & Costume Construction (4 units)

THTR 31 Fundamentals of Stage Management (2 units)

THTR 31L Theatre Production Management Laboratory (2 units)

THTR 47 Music Theatre Production Workshop (2 units)

or THTR 49 Rehearsal & Performance (2 units)

Support Courses: (14 units)

ART 4A Drawing I (4 units)

GID 50 Graphic Design Studio I (4 units)

THTR 21B Intermediate Scenery & Property Construction (3 units)

THTR 21C Advanced Scenery & Properties Construction (3 units)

Certificate of Achievement (38 units)

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

Career Certificate in Theatre Technology (18 units) Non-transcriptable

ART 4A Drawing I

or GID 50 Graphic Design Studio I (4 units)

THTR 1 Theatre Arts Appreciation (4 units)

or THTR 8 Multicultural Performing Arts in Modern America (4 units)

THTR 21 Introduction to Technical Theatre (1 unit)

THTR 21A Scenery & Property Construction (3 units)

THTR 25 Introduction to Fashion & Costume Construction (4 units)

THTR 31 Fundamentals of Stage Management (2 units)

THTR 31L Theatre Production Management Laboratory (2 units)

THTR 47 Music Theatre Production Workshop (2 units)

or THTR 49 Rehearsal & Performance (2 units)

TRANSFER STUDIES—CSU GE^[57]

Program Type(s):

Certificate of Achievement^[58]

Units required for certificate: 52

Program Learning Outcomes

- For information on the program outcomes for the CSU GE, review the institutional learning outcomes on pages 76–77.

Certificate Information:

AREA A: Communication in the English Language and Critical Thinking (12 quarter units)

One course required from A1, A2 and A3.^[59]

A1. Oral Communication: COMM 1A, 1AH, 1B, 1BH, 2, 3, 4.

A2. Written Communication: ENGL 1A, 1AH, 1B, ENGL 42S & T or ESLL 26.

A3. Critical Thinking: ENGL 1B, 1BH, 1C, 1CH, PHIL 1, 7, 50.

[57] Courses completed for this Certificate of Achievement must be on the approved list during the year in which they were taken. Consult a counselor with any questions.

[58] 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 GE/Breadth pattern, as outlined and required by the CSU. 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.

The Certificate of Achievement will be noted on the student's transcript. To earn the Certificate of Achievement, students must complete the coursework outlined below. Residency requirement: a minimum of 16 units must be completed at Foothill College. Courses on this list are approved for a specific academic year. A course cannot be certified by Foothill College unless it was on the Foothill College CSU GE/Breadth Certification 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 CSU campus, students must complete at least 90 units of CSU transferable courses with a GPA of 2.0 or better. Completion of the CSU GE/Breadth curriculum requirements as outlined satisfies the requirements of the Certificate of Achievement in Transfer Studies (CSU GE). In addition to completing the courses for the Certificate of Achievement, the student is responsible for completing major preparation and/or elective credits to complete the 90-quarter units required for admission for all CSU campuses. Students can use www.assist.org to review major preparation courses and are strongly advised to see a counselor for educational planning in order to achieve successful admission to the university of their choice.

Students transferring to a university must also request a formal CSU GE/Breadth certification through the Foothill College Evaluations Office prior to transfer but after completion of certificate courses.

[59] Required for CSU Admission.

*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, MATH 17, 105 or 108.

AREA B: Natural Sciences and 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*, 12A*, 12B*, 12C*, 25*, 30A*, 30B*, GEOG 1*, PHYS 2A*, 2B*, 2C*, 4A*, 4B*, 4C*, 4D*, PHYS 5A*, 5B*, 5C*, 6, 12.

B2. Biological & Life Science:

ANTH 1, 1L*, BIOL 1A*, 1B*, 1C*, 1D, 9, 9L*, 10*, 12, 13*, 14*, 15*, 17, 40A*, 40B*, 40C*, 41*, 45, BTEC 10, 51A, 51AL*, HORT 10*.

B4. Mathematics/Quantitative Reasoning:^[60]

CIS 18, MATH 1A, 1B, 1C, 1D, 2A, 2B, 10, 11, 12, 17, 22, 44, 48A, 48B, 48C, 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.^[61]

C1. Arts (Art, Dance, Music, Theater):

ART 1, 2A, 2AH, 2B, 2BH, 2C, 2CH, 2D, 2E, 3, 4A, 4C, 6, 12, 13, 14, 45A, 80, DANC 10, 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 (same as ENGL 42A, 42B, 42C), 8, 20A, 26, VART 1, 2C, 3, WMN 15.

C2. Humanities (Literature, Philosophy, Foreign Languages):

CHIN 1, 2, 3, 4, 5, 6, 13C, 14A, 14B, 14C, 25A, 25B, COMM 12, CRWR 6, 39A, 39B, 40, 41A, 41B, ENGL 1B, 5, 5H, 7, 7H, 8, 11, 11H, 12, 14, 17, 22, 31, 40, 40H, 41, 42A, 42B, 42C (same as THTR 2A, 2B, 2C), 46A 46B, 46C, 48A, 48B, 48C, FA 1, 2, HIST 4A, 4B, 4C, 4CH, HUMN 1A, 1B, JAPN 1, 2, 3, 4, 5, 6, 25A, 25B, 33, PHIL 2, 4, 8, 20A, 20B, 20C, 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^[62].

Requirement 2:

One course, selected from D1 through D0.

D1. Anthropology & Archaeology:

ANTH 2A, 2B, 3, 4, 5, 6, 8, 8L, 8LX, 8LY, 11, 12, 20, 22, 50.

D2. Economics:

ECON 1A, 1B, 9, 18, 25, GEOG 5, POLI 9.

D3. Ethnic Studies:^[63]

ANTH 2B, 4, 6, 20, CHLD 11, COMM 12, ENGL 12, 31, HIST 10, MUS 8, PHIL 24, 25, PHOT 8, 8H, PSYCH 21, 22, SOC 21, 23, SOSOC 20, WMN 21.

D4. Gender Studies:

ART 2E, COMM 10, ENGL 22, PSYC 21, SOC 21, WMN 5, 11, 15, 21.

D5. Geography:

GEOG 2, 5, 9, 10.

D6. History:

HIST 4A, 4B, 4C, 4CH, 8, 9, 9H, 10, 15, 16, 16H, 17A, 17B, 17C, 18, 20.

D7. Interdisciplinary Social or Behavioral Science:

CHLD 1, 2, 11, 55, HIST 18, PHED 2, SOC 8, SOSOC 20, SPED 62.

D8. Political Science, Government & Legal Institutions:

ECON 9, GERM 8, POLI 1, 2, 2H, 3, 3H, 9, 9H, 15, 15H, SPED 64.

[60] Required for CSU Admission.

[61] Students who did not complete ENGL 1B for Area A3 above must complete ENGL 1B as one of the Area C courses. Courses may not be counted in more than one area.

[62] F1 CSU American Institutions Requirement.

[63] Some CSU campuses may require additional courses after transfer to meet this requirement.

D9. Psychology:

CHLD 50A, 55, PSYC 1, 4, 10, 14, 21, 22, 25, 30, 33, 40, 49, 55, SOC 10, 21, 30, WMN 21.

D0. 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 (4–5 quarter units)

E. BIOL 8, CNSL 2, 72, CRLP 70, DANC^[64] 1A, 1B, 2, 3A, 3B, 4, 5, 6, 7, 9, HLTH 21, any PHED/PE activity course^[65], PHED 4, PSYC 50, SOC 19, 40, SPED 52, 62, 72.

TRANSFER STUDIES—IGETC^[66]

Program Type(s):

Certificate of Achievement^[67]

Units required for certificate: 49 (minimum)

Program Learning Outcomes

- For information on the program outcomes for IGETC, review the institutional learning outcomes on pages 76–77.

AREA 1: English Communication

For UC: Complete one course from Group A and one course from Group B.

For CSU: Complete one course from Group A, Group B and Group C.

Group A:

English Composition: ENGL 1A, 1AH (4–5 quarter units)

Group B: (4–5 quarter units)

Critical Thinking/English Composition: ENGL 1B, 1BH, 1C, 1CH, PHIL 1

Group C: (5 quarter units)

Oral Communication:^[68] COMM 1A, 1AH, 1B, 1BH, 2, 3, 4.

[64] DANC counts as PE Activity.

[65] Limited to two units.

[66] Courses completed for this Certificate of Achievement must be on the approved list during the year in which they were taken. Consult a counselor with any questions.

[67] This Certificate of Achievement is designed for students who intend to transfer to either 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 below. Residency 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 courses 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. IGETC requirements as outlined satisfies the requirements of the Certificate of Achievement in Transfer Studies (IGETC). In addition to completing the courses for the Certificate of Achievement, the student is responsible for completing major preparation and/or elective credits to complete the 90-quarter units required for admission for all UC and CSU campuses. Students can use www.assist.org to review major preparation courses and are strongly advised to see a counselor for educational planning in order to achieve successful admission to the university of their choice.

Students transferring to a university must also request a formal IGETC certification through the Foothill College Evaluations Office prior to transfer.

[68] Required for CSU only.

*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, MATH 17, 105 or 108.

AREA 2: Mathematical Concepts & Quantitative Reasoning (4–5 quarter units)

Complete a minimum of one course.

CIS 18, MATH 1A, 1B, 1C, 1D, 2A, 2B, 10, 11, 12, 22, 44, 48A, 48B, 48C, 49.

AREA 3: Arts & Humanities (12–15 quarter units)

At least three courses: one course from the Arts and one course from Humanities, plus one more course.

Arts:

ART 1, 2A, 2AH, 2B, 2BH, 2C, 2CH, 2D, 2E, 3, 12, 13, 14, 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 8, 8H, 10, 10H, 11, 11H, THTR 1, 2A, 2B, 2C, 8, 26, VART 1, 2A, 2B, 2C, 3, WMN 15.

Humanities:

CHIN 4, 5, 6, 25A 25B, ENGL 5, 5H, 7, 7H, 8, 11, 11H, 12, 14, 17, 22, 31, 40, 40H, 41, 42A, 42B, 42C, 46A 46B, 46C, 48A, 48B, 48C, FA 1, 2, HIST 4A, 4B, 4C, 4CH, HUMN 1A, 1B, JAPN 4, 5, 6, 25A, 25B, 33, PHIL 2, 4, 8, 20A, 20B, 22, 24, 25, SPAN 4, 5, 6, 25A, 25B, THTR 2A, 2B, 2C.

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, 12, 20, 22, ART 2E, CHLD 55, COMM 10, 12, ECON 1A, 1B, 9, 18, 25, GEOG 2, 5, 9, 10, GERM 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, 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).^[69]

Physical Sciences:

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*, 5A*, 5B*, 5C*, 6, 12.

Biological Sciences:

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*.

AREA 6: Language Other Than English^[70]

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, JAPN 2, 3, 4, 5, 6, SPAN 2, 3, 4, 5, 6.

[69] Either UC or CSU may limit credit.

[70] UC requirement only.

VETERINARY TECHNOLOGY

Program Type(s):

A.S. Degree; Career Certificate

Units required for major: 93, certificate(s): 13

Program Learning Outcomes

- The student will demonstrate competency in the necessary knowledge, skills and values required for the practice of veterinary technology in a wide scope of practice settings.
- The graduates will demonstrate entry-level clinical skills competency in accordance with accreditation requirements.

Associate Degree Requirements *

Core Courses: (93 units)

First Year^[71]

Fall Quarter: (11.5 units)

VT 50 Current Topics in Veterinary Technology (.5 unit)

VT 53A Medical Terminology (1 unit)

VT 54A Comparative Veterinary Anatomy & Physiology for the Veterinary Technician (5 units)

VT 55 Animal Management & Clinical Skills I (4 units)

VT 75A Animal Care Skills (1 unit)

Winter Quarter: (13.5 units)

VT 50 Current Topics in Veterinary Technology (.5 unit)

VT 53B Medical Calculations (1 unit)

VT 60 Veterinary Office Practice (2 units)

VT 56 Animal Management & Clinical Skills II (4 units)

VT 75B Animal Care Skills II (1 unit)

CHEM 30A Survey of Inorganic & Organic Chemistry (5 units)

Spring Quarter: (14.5 units)

VT 50 Current Topics in Veterinary Technology (.5 unit)

VT 53C Introduction to Large Animal Care (1 unit)

VT 54B Comparative Veterinary Anatomy & Physiology for the Veterinary Technician (5 units)

VT 75C Animal Care Skills III (1 unit)

VT 86 Laboratory Animal Technology (4 units)

VT 89 Clinical Internship I (3 units)

Summer Session: (7 units)

BIOL 41 Microbiology (6 units)

VT 75D Animal Care Skills IV (1 unit)

Second Year^[72]

Fall Quarter: (17.5 units)

VT 50 Current Topics in Veterinary Technology (.5 unit)

VT 70 Fundamentals of Veterinary Diagnostic Imaging (4 units)

VT 81 Clinical Pathology Methods (5 units)

VT 83 Pharmacology for Technicians (4 units)

VT 87A Advanced Animal Care Skills I (1 unit)

VT 91 Clinical Internship II (3 units)

Winter Quarter: (14.5 units)

VT 50 Current Topics in Veterinary Technology (.5 unit)

[71] All courses must be taken in sequence and completed with a grade of **C** or better.

[72] All courses must be taken in sequence and completed with a grade of **C** or better.

*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, MATH 17, 105 or 108.

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VT 61 Animal Diseases (5 units)
VT 84 Anesthesiology for Technicians (5 units)
VT 87B Advanced Animal Care Skills II (1 unit)
VT 92 Clinical Internship III (3 units)

Spring Quarter: (14.5 units)

VT 50 Current Topics in Veterinary Technology (.5 unit)
VT 72 Principles of Veterinary Dentistry (2 units)
VT 85 Veterinary Emergency & Critical Care (4 units)
VT 87C Advanced Animal Care Skills III (1 unit)
VT 93 Clinical Internship IV (4 units)
VT 95 Veterinary Technician Proficiency (2 units)
VT 95L Veterinary Technician Proficiency Laboratory (1 unit)

**Online Veterinary Assisting Career Certificate (13 units)
Non-transcriptable**

VT 52A Veterinary Assisting I (5 units)
VT 52B Veterinary Assisting II (5 units)
VT 88A Clinical Preceptorship I (1.5 units)
VT 88B Clinical Preceptorship II (1.5 units)

WOMEN'S STUDIES

Program Type(s):

A.A. Degree

Units required for major: 90

Program Learning Outcomes

- Identify connections between specific people, groups, events and ideas and larger sociological, psychological, historical and gender studies specific themes, developments and topics.
- Critically analyze a variety of primary and secondary sources and draw valid sociological, psychological, historical, and gender studies interpretations from them.

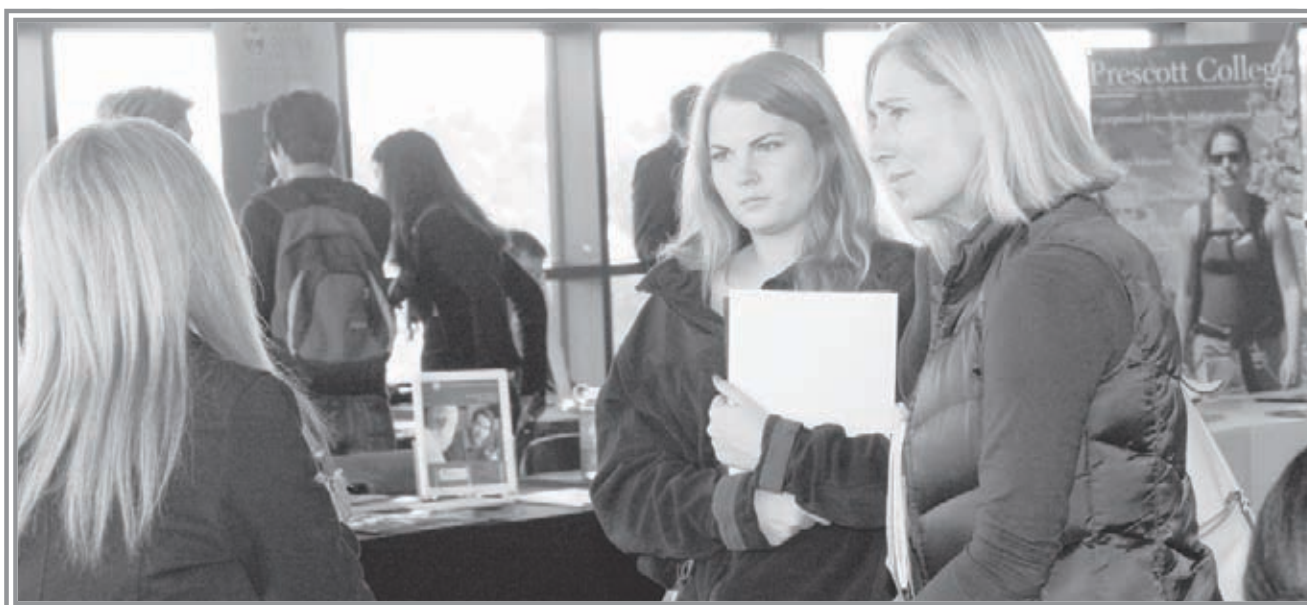
Associate Degree Requirements *

Core Courses: (17 units)

WMN 5 Introduction to Women's Studies (4 units)
WMN 11 Women in Global Perspective (4 units)
WMN 21 Psychology of Women: Sex & Gender Differences (4 units)
or SOC 21 Psychology of Women: Sex & Gender Differences (4 units)
or PSYC 21 Psychology of Women: Sex & Gender Differences (4 units)
COMM 10 Gender, Communication & Culture (5 units)

Support Courses: (16 units)

PSYC 14 Childhood & Adolescence (4 units)
PSYC 22 Psychology of Prejudice (4 units)
SOC 30 Social Psychology (4 units)
or PSYC 30 Social Psychology (4 units)
SOC 40 Aspects of Marriage & Family (4 units)
SOSC 20 Cross-Cultural Perspectives for a Multicultural Society (4 units)
ENGL 22 Women Writers (4 units)
WMN 15 A History of Women in Art (4.5 units)
WMN 34H Honors Institute Seminar in Women's Studies (1 unit)
WMN 35 Department Honors Projects in Women's Studies (1 unit)
WMN 36-36Z Special Projects in Women's Studies (1-4 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, MATH 17, 105 or 108.

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. New courses and programs maybe added throughout the year and for more information, please see the online catalog.

- 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 or 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 200–299 are prerequisites for required courses that lead to the associate 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 consumer education, adaptive learning or other areas that do not apply to the associate degree.
- Community services courses are fee-based, and are scheduled and publicized separately from the state-supported courses identified in this catalog.

Course Listings

Course Numbering System

Course Listings

Course Listings

ACCOUNTING

Business & Social Sciences

(650) 949-7322
www.foothill.edu/bss/

ACTG 1A FINANCIAL ACCOUNTING I 5 Units
Advisory: Eligibility for MATH 220 and ESLL 26.
Not Repeatable.
5 hours lecture.

Introduction to accounting information systems for decision making. Original entry and posting, adjusting and closing entries, development of accounting system for computers, internal controls over assets, accounting for monetary assets and inventories, and the relationship among financial statements. [FHGE: Non-GE; Transferable: UC/CSU]

ACTG 1B FINANCIAL ACCOUNTING II 5 Units
Prerequisite: ACTG 1A.
Advisory: Eligibility for MATH 220 and ESLL 26.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: UC/CSU]

ACTG 1C MANAGERIAL ACCOUNTING 5 Units
Prerequisite: ACTG 1B.
Advisory: MATH 10 or high school algebra.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: UC/CSU]

ACTG 51A INTERMEDIATE ACCOUNTING I 4 Units
Prerequisite: ACTG 1B.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: CSU]

ACTG 51B INTERMEDIATE ACCOUNTING II 4 Units
Prerequisite: ACTG 51A.
Not Repeatable.
4 hours lecture.

Accounting for PP&E, intangible assets, current liabilities, long-term liabilities, and equity. [FHGE: Non-GE; Transferable: CSU]

ACTG 51C INTERMEDIATE ACCOUNTING III 4 Units
Prerequisites: ACTG 51B.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: CSU]

ACTG 58 AUDITING 5 Units
Prerequisite: ACTG 51A.
Advisory: Eligibility for MATH 220 and ESLL 26.
Not Repeatable.
5 hours lecture.

Study of the contemporary auditing environment, auditing profession, and the principle, and practices of financial statement audit. Topics include auditing, attestation and assurance services, Generally Accepted

Auditing Standards (GAAS), attestation standards, professional ethics, Sarbanes-Oxley Act 2002 regulatory requirements, internal controls and audit risk, audit planning, procedures, evidence, documentation and report writing. [FHGE: Non-GE; Transferable: CSU]

ACTG 60 ACCOUNTING FOR SMALL BUSINESS 5 Units
Advisory: Eligibility for MATH 220 and ESLL 26.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: CSU]

ACTG 64A COMPUTERIZED ACCOUNTING PRACTICE USING QUICKBOOKS 2 Units
Prerequisites: ACTG 1A or equivalent experience.
Advisory: Not open to students with credit in CIS 64A.
Not Repeatable.
4 hours lecture-laboratory.

Focus on using QuickBooks to record financial data. Reviewing the accounting cycle, processing business transactions and preparing financial statements. [FHGE: Non-GE; Transferable: CSU]

ACTG 64B COMPUTERIZED ACCOUNTING PRACTICE USING EXCEL 2 Units
Prerequisite: ACTG 1B or equivalent experience.
Advisory: Not open to students with credit in CIS 64B.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: CSU]

ACTG 65 PAYROLL & BUSINESS TAX ACCOUNTING 4 Units
Prerequisite: ACTG 1A.
Advisory: Eligibility for MATH 220 and ESLL 26.
May be taken 3 times for credit.
4 hours lecture.

Presentation of basic payroll procedures used in business today. Provides practice in recording procedures and preparation of tax returns. [FHGE: Non-GE; Transferable: CSU]

ACTG 66 COST ACCOUNTING 5 Units
Prerequisite: ACTG 1C or equivalent experience.
Advisory: Eligibility for MATH 220 and ESLL 26.
Not Repeatable.
5 hours lecture.

Fundamentals of activity-based costing, job-order, process cost, and standard cost accounting systems. [FHGE: Non-GE; Transferable: CSU]

ACTG 67 TAX ACCOUNTING 5 Units
Advisory: Eligibility for MATH 220 and ESLL 26.
May be taken 3 times for credit.
5 hours lecture.

Current Federal and California Income Tax Law as it relates to individuals, emphasizing practical application, tax planning and tax form preparation. [FHGE: Non-GE; Transferable: CSU]

ACTG 68A ADVANCED TAX ACCOUNTING I 4 Units
Prerequisite: ACTG 67.
Advisory: Eligibility for MATH 220 and ESLL 26.
May be taken 3 times for credit.
4 hours lecture.

Current federal income tax law as it relates to sole proprietorship and partnership. [FHGE: Non-GE; Transferable: CSU]

ACTG 68B ADVANCED TAX ACCOUNTING II 4 Units
Prerequisites: ACTG 68A.
Advisory: Eligibility for MATH 220 and ESLL 26.
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. [FHGE: Non-GE; Transferable: 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. [FHGE: Non-GE; Transferable: CSU]

ACTG 75 ACCOUNTING FOR GOVERNMENT & NOT-FOR-PROFIT 5 Units
Prerequisite: ACTG 1B.
Advisory: Eligibility for MATH 220 and ESLL 26.
Not Repeatable.
5 hours lecture.
 Study of governmental and not-for-profit accounting. Topics include financial reporting; federal, state and local government accounting; budgetary accounting; general and special revenue funds; proprietary funds; trust and agency funds; fixed assets and long term debt; and nonprofit accounting for entities such as public colleges, universities and health care providers. [FHGE: Non-GE; Transferable: CSU]

ADAPTIVE LEARNING: COMMUNITY BASED

Adaptive Learning (650) 949-7017
www.foothill.edu/al/

ALCB 201 BEGINNING LIP READING .5 Unit
Non-degree applicable credit course.
Prerequisite: Medically verified disability.
May be taken 6 times for credit.
1.5 hours lecture-laboratory.
 Designed for adults with acquired, congenital or progressive hearing impairment. Includes basic sounds of the English language and how production of basic speech sounds appears on the lips and face of the speaker. Mechanics of the ear and sound will be presented. Physiological problems related to hearing will be discussed as well as some technological solutions. Practical experience in lip reading will be provided. [FHGE: Non-GE; Transferable: Not transferable]

ALCB 202 INTERMEDIATE LIP READING & MANAGING YOUR HEARING LOSS .5 Unit
Non-degree applicable credit course.
Prerequisite: Medically verified disability.
May be taken 6 times for credit.
1.5 hours lecture-laboratory.
 Designed to meet the needs of the hearing impaired adult with acquired hearing impairment. [FHGE: Non-GE; Transferable: Not transferable]

ALCB 203 ADVANCED LIP READING & MANAGING YOUR HEARING LOSS .5 Unit
Non-degree applicable credit course.
Prerequisite: Medically verified disability; ALCB 201, 202 or equivalent skills.
May be taken 6 times for credit.
1.5 hours lecture-laboratory.
 Designed to meet the needs of the hearing impaired adult with acquired hearing impairment. [FHGE: Non-GE; Transferable: Not transferable]

ALCB 222 JOB SEARCH SKILLS 3 Units
Non-degree applicable credit course.
Prerequisite: Medically verified disability.
May be taken 6 times for credit.
6 hours lecture-laboratory.
 Preparation and skills necessary for re-entry into the job market. Emphasis on technological changes impacting the job search. Includes use of Internet and networking sites for making connections for job search. [FHGE: Non-GE; Transferable: Not transferable]

ALCB 223 CAREER RESOURCES 2 Units
Non-degree applicable credit course.
Prerequisite: Medically verified disability.
May be taken 6 times for credit.
6 hours laboratory.
 Career Resources is an introduction and hands-on use of resources available to research and find employment in the Bay Area. Resources include daily on-line job postings, fax, internet, telephones, corporate events, casual labor, job fairs and career library. Designed for the disabled student. [FHGE: Non-GE; Transferable: Not transferable]

ALCB 224 EMPLOYMENT ISSUES 1 Unit
Non-degree applicable credit course.
Prerequisite: Medically verified disability.
May be taken 6 times for credit.
2 hours lecture-laboratory.
 The computer and job search classes at the Next Step Center. 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. [FHGE: Non-GE; Transferable: Not transferable]

ALCB 229 WORK ADJUSTMENT FOR THE DISABLED .5 Unit
Non-degree applicable credit course.
Prerequisite: Medically verified disability.
May be taken 6 times for credit.
3 hours laboratory.
 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. [FHGE: Non-GE; Transferable: Not transferable]

ALCB 230 INTRODUCTION TO THE COMPUTER FOR THE DISABLED 2 Units
Non-degree applicable credit course.
Prerequisite: Medically verified disability.
May be taken 6 times for credit.
4 hours lecture-laboratory.
 Introduction to the computer designed for the student with little or no computer experience. Emphasis on word processing, keyboarding and use of internet. [FHGE: Non-GE; Transferable: Not transferable]

ALCB 231 CAREER PLANNING & PERSONAL ASSESSMENT .5 Unit
Non-degree applicable credit course.
Prerequisite: Medically verified disability.
May be taken 6 times for credit.
1.5 hours laboratory.
 Designed to help students develop a personal profile that identifies sociological, psychological and physiological perspectives for success in work, education and personal life. [FHGE: Non-GE; Transferable: Not transferable]

ALCB 403,X,Y CHANGING GENERATIONS 0 Units
Non-degree applicable non-credit course.
Prerequisite: Medically verified disability.
Unlimited Repeatability.
12 hours total.
 Designed to offer an opportunity for young and old to share a relationship. [FHGE: Non-GE; Transferable: Not transferable]

ALCB 406,X,Y WORLD NEWS DISCUSSION 0 Units
Non-degree applicable non-credit course.
Prerequisite: Medically verified disability.
Unlimited Repeatability.
12 hours total.
 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. [FHGE: Non-GE; Transferable: Not transferable]

<p>ALCB 407,X,Y SOCIAL CHANGE 0 Units Non-degree applicable non-credit course. Prerequisite: Medically verified disability. Unlimited Repeatability. 12 hours total. 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. [FHGE: Non-GE; Transferable: Not transferable]</p>	<p>ALCB 431,X-Z ANALYSIS OF CURRENT EVENTS 0 Units Non-degree applicable non-credit course. Prerequisite: Medically verified disability. Unlimited Repeatability. 12 hours total. 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. [FHGE: Non-GE; Transferable: Not transferable]</p>
<p>ALCB 408,X,Y ART APPRECIATION 0 Units Non-degree applicable non-credit course. Prerequisite: Medically verified disability. Unlimited Repeatability. 12 hours total. 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. [FHGE: Non-GE; Transferable: Not transferable]</p>	<p>ALCB 451,X-Z DRAWING & PAINTING 0 Units Non-degree applicable non-credit course. Prerequisite: Medically verified disability. Unlimited Repeatability. 12 hours total. 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. [FHGE: Non-GE; Transferable: Not transferable]</p>
<p>ALCB 409,X,Y MUSIC APPRECIATION 0 Units Non-degree applicable non-credit course. Prerequisite: Medically verified disability. Unlimited Repeatability. 24 hours total. Designed for the disabled student to acquire appreciation of composers and their works. Emphasis on identification and recall of auditory input. [FHGE: Non-GE; Transferable: Not transferable]</p>	<p>ALCB 455,X-Z MUSIC & MOVEMENT 0 Units Non-degree applicable non-credit course. Prerequisite: Medically verified disability. Unlimited Repeatability. 12 hours total. Designed for the disabled student to improve flexibility and mobility through exercise performed to music. [FHGE: Non-GE; Transferable: Not transferable]</p>
<p>ALCB 411,X,Y HEALTH ISSUES 0 Units Non-degree applicable non-credit course. Prerequisite: Medically verified disability. Unlimited Repeatability. 12 hours total. Designed for the disabled to acquire information and develop strategies for managing the physical, social and psychological effects of illness. [FHGE: Non-GE; Transferable: Not transferable]</p>	<p>ALCB 456,X-Z CRAFTS 0 Units Non-degree applicable non-credit course. Prerequisite: Medically verified disability. Unlimited Repeatability. 12 hours total. 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. [FHGE: Non-GE; Transferable: Not transferable]</p>
<p>ALCB 413,X,Y RELAXATION TECHNIQUES 0 Units Non-degree applicable non-credit course. Prerequisite: Medically verified disability. Unlimited Repeatability. 12 hours total. Designed for the disabled student to acquire information about and develop techniques for achieving relaxation by releasing mental and physical tension. [FHGE: Non-GE; Transferable: Not transferable]</p>	<p>ALCB 462,X-Z VERBAL EXPRESSION 0 Units Non-degree applicable non-credit course. Prerequisite: Medically verified disability. Unlimited Repeatability. 12 hours total. Designed for the disabled student to teach techniques in verbal communication specifically to improve family, social and work-related situations. [FHGE: Non-GE; Transferable: Not transferable]</p>
<p>ALCB 414,X,Y STRESS MANAGEMENT 0 Units Non-degree applicable non-credit course. Prerequisite: Medically verified disability. Unlimited Repeatability. 12 hours total. 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. [FHGE: Non-GE; Transferable: Not transferable]</p>	<p>ALCB 463,X,Y CREATIVE WRITING 0 Units Non-degree applicable non-credit course. Prerequisite: Medically verified disability. Unlimited Repeatability. 12 hours total. 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. [FHGE: Non-GE; Transferable: Not transferable]</p>
<p>ALCB 42,X,Y AROUND THE WORLD IN TRAVEL STUDY 0 Units Non-degree applicable non-credit course. Prerequisite: Medically verified disability. Unlimited Repeatability. 12 hours total. 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. [FHGE: Non-GE; Transferable: Not transferable]</p>	<p>ALCB 464,X,Y POETRY & LITERATURE 0 Units Non-degree applicable non-credit course. Prerequisite: Medically verified disability. Unlimited Repeatability. 12 hours total. 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. [FHGE: Non-GE; Transferable: Not transferable]</p>

ALCB 465,X–Z CREATIVE SELF-EXPRESSION 0 Units
 Non-degree applicable non-credit course.
 Prerequisite: Medically verified disability.
 Unlimited Repeatability.
 12 hours total.
 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. [FHGE: Non-GE; Transferable: Not transferable]

ALCB 481,X–Z EXERCISE FOR THE OLDER DISABLED ADULT 0 Units
 Non-degree applicable non-credit course.
 Prerequisite: Medically verified disability. Physician approval required.
 Unlimited Repeatability.
 24 hours total.
 Directed activities for improvement of flexibility, range of movement, muscular strength and endurance. Designed for students with disabilities. [FHGE: Non-GE; Transferable: Not transferable]

**ADAPTIVE LEARNING:
 COMPUTER ACCESS CENTER**

Adaptive Learning (650) 949-7017
www.foothill.edu/al/

ALCA 201 COMPUTER ACCESS EVALUATION 1 Unit
 Formerly: ALCA 101
 Non-degree applicable credit course.
 Prerequisite: Medically verified disability or access limitation.
 Advisory: Pass/No Pass.
 May be taken 6 times for credit.
 3 hours laboratory.
 Evaluation with emphasis on determining the efficacy and appropriateness of accommodations required for parity with peers in regular college curricula. [FHGE: Non-GE; Transferable: Not transferable]

ADAPTIVE LEARNING: GERONTOLOGY

Adaptive Learning (650) 949-7332
www.foothill.edu/aging

GERN 50 SOCIOLOGY OF AGING 3 Units
 Not Repeatable.
 3 hours lecture.
 This course is an introduction to the field of gerontology, the study of aging. It includes an examination of the history of the field and major theories in social gerontology. It explores myths and stereotypes of aging, demography of elders in the United States, patterns of work and retirement, family structures and issues, financial resources, housing options, ethnic and cultural diversity among elders, and federal policies affecting older Americans. [FHGE: Non-GE; Transferable: CSU]

GERN 51 PSYCHOLOGY OF AGING 3 Units
 Not Repeatable.
 3 hours lecture.
 An introduction to normal emotional and psychological changes that typically occur in later life, including discussion of common mental health problems that elders can experience: how to recognize them, and what to do to assist the individual and the family. Throughout the class, ethnic and cultural differences in presentation, evaluation, and treatment of mental health problems in various culturally diverse groups will be highlighted. [FHGE: Non-GE; Transferable: CSU]

GERN 52 HEALTH & AGING 3 Units
 Not Repeatable.
 3 hours lecture.
 An introduction to normal physical changes in older adults without significant disability, common diseases and disabilities that occur in old age, health promotion/disease prevention strategies, and health care policies and practices. [FHGE: Non-GE; Transferable: CSU]

GERN 53 PRACTICUM IN SENIOR SERVICES 3 Units
 Not Repeatable.
 2 hours lecture, 3 hours laboratory.
 Work experience as volunteers or employees in age-related services to be taken after the course work is completed, or with permission of the instructor. Students must either: a) complete 40 hours of volunteer time in an agency approved by the instructor; or b) if already employed in an aging related program, design and implement a special project approved by the instructor. [FHGE: Non-GE; Transferable: CSU]

GERN 54 CONTINUUM OF CARE OPTIONS 3 Units
 Not Repeatable.
 3 hours lecture.
 An overview of the types of care options available to serve independent and dependent elders; including senior centers, adult day care programs, assisted living and nursing homes. Regulations and management issues will be explored. Role of ombudsmen and advocacy organizations are discussed. [FHGE: Non-GE; Transferable: CSU]

GERN 55 ISSUES IN DEATH, DYING & BEREAVEMENT ACROSS CULTURES 3 Units
 Not Repeatable.
 3 hours lecture.
 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. [FHGE: Non-GE; Transferable: CSU]

GERN 56 AGING & DIVERSITY 3 Units
 Not Repeatable.
 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 US. 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. [FHGE: Non-GE; Transferable: CSU]

**ADAPTIVE LEARNING:
 LEARNING DISABILITY**

Adaptive Learning (650) 949-7017
www.foothill.edu/al/

ALLD 206 PARAGRAPH REMEDIATION 2 Units
 Non-degree applicable credit course.
 Advisory: Medically verified disability.
 Corequisites: ENGL 100 and 110.
 May be taken 6 times for credit.
 6 hours laboratory.
 A paragraph development class with an emphasis on writing concisely with correct grammar. Provides support and instruction to students in remedial English courses who struggle with basic reading and writing skills. Focus on research, reading comprehension, content development, and writing structure. Intended for students enrolled in ENGL 100 or ENGL 110. Enrollment is limited to 6 times within the ALLD 206 group. [FHGE: Non-GE; Transferable: Not transferable]

ALLD 207 BASIC MATH REMEDIATION 1 Unit
ALLD 207X 2 Units
 Non-degree applicable credit course.
 Advisory: Pass/No Pass; medically verified disability.
 May be taken 6 times for credit.
 3 hours laboratory for each unit of credit.
 A systematic and remedial math class with an emphasis on basic math skills. Designed for ALLD students. Enrollment is limited to 6 times within the ALLD 207 group. [FHGE: Non-GE; Transferable: Not transferable]

ALLD 210 UNDERSTANDING LEARNING DIFFERENCES 3 Units
Formerly: ALLD 601
 Non-degree applicable credit course.
 Not Repeatable.
 2 hours lecture, 3 hours laboratory.
 Focuses on learning differences, learning theory and strategies related to specific learning challenges. Creation of individual learning portfolio to identify learning style, strengths and weaknesses. Covers understanding of learning differences, methods of retention and output of knowledge. Cognitive and achievement testing will be provided as appropriate to identify student individual learning profile. [FHGE: Non-GE; Transferable: Not transferable]

ALLD 211 ENHANCING COLLEGE SUCCESS 2 Units
 Non-degree applicable credit course.
 Advisory: Medically verified disability.
 May be taken 2 times for credit.
 2 hours lecture, 2 hours of individualized assigned activities.
 Define the characteristics of a successful college student, and practice developing behaviors and attitudes that increase academic success, including familiarity with campus resources. Basic aspects of various learning differences, including learning disabilities and attention deficit/hyperactive disorders and their impact on learning. Emphasis is on awareness and acceptance of individual learning differences. Demonstrate advocacy for learning requirements with instructional faculty. Evaluate and reinforce successful learning tools in areas such as time management, memory, processing information, and learning styles. Placement by Disability Resource Center counselors, counselors or faculty is accepted. Prior Learning Disabilities testing is not required. [FHGE: Non-GE; Transferable: Not transferable]

ALLD 212 STUDENT SUCCESS STRATEGIES .5 Unit
Formerly: ALLD 603
 Non-degree applicable credit course.
 May be taken 6 times for credit.
 .5 hour lecture.
 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), and develop relationships with faculty members to support learning. [FHGE: Non-GE; Transferable: Not transferable]

**ADAPTIVE LEARNING:
 SPECIAL EDUCATION**

Adaptive Learning (650) 949-7332
www.foothill.edu/al/

SPED 50 INTRODUCTION TO ADAPTIVE FITNESS TECHNIQUES 3 Units
 Not Repeatable.
 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. [FHGE: Non-GE; Transferable: CSU]

SPED 52 POSITIVE AGING 3 Units
 Advisory: SPED 55 is highly recommended.
 Not Repeatable.
 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. [FHGE: Lifelong Understanding; Transferable: CSU]

SPED 54 PRINCIPLES OF THERAPEUTIC EXERCISE 3 Units
 May be taken 2 times for credit.
 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. [FHGE: Non-GE; Transferable: CSU]

SPED 55 GERIATRIC FITNESS CONCEPTS 3 Units
 Not Repeatable.
 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. [FHGE: Non-GE; Transferable: CSU]

SPED 56 FUNCTIONAL ASPECTS OF ADAPTIVE FITNESS 3 Units
 Not Repeatable.
 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. [FHGE: Non-GE; Transferable: CSU]

SPED 57 WORKING WITH SPECIAL POPULATIONS 3 Units
 Not Repeatable.
 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. [FHGE: Non-GE; Transferable: 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. [FHGE: Non-GE; Transferable: CSU]

- SPED 61 INTRODUCTION TO DISABILITIES 4 Units**
Advisory: Eligibility for ENGL 1A.
Not Repeatable.
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. [FHGE: United States Cultures & Communities, Lifelong Understanding; Transferable: CSU]
- SPED 62 PSYCHOLOGICAL ASPECTS OF DISABILITY 4 Units**
Advisory: Eligibility for ENGL 1A; familiarity with ETUDES, word processing, and the internet.
Not Repeatable.
4 hours lecture.
 Psychological aspects of disability, including psychosocial, cultural, and physical considerations of disability and illness. Examines the effects of illness and disability on the individual, family, and society as a whole. Focuses on the historical and current perspectives on illness and disability, the interventions and resources available, and future trends in the field. Discussions include a wide range of disabilities. [FHGE: Non-GE; Transferable: CSU]
- SPED 63 LEARNING DISABILITIES 4 Units**
Advisory: Eligibility for ENGL 1A; familiarity with word processing and the internet.
Not Repeatable.
4 hours lecture.
 Introduction to the field of learning disabilities and related mild disabilities. Focuses on the impact of special education laws: No Child Left Behind Act, Individuals with Disabilities Education Improvement Act of 2004, Americans With Disabilities Act, and Section 504 of the Rehabilitation Act of 1973. Covers provision of services to students with learning disabilities in the K-12 to post-secondary settings. Stresses the importance of early identification, referral, assessment, and interventions to assist students with learning disabilities. Explores best practices for effective instruction for people with learning disabilities. [FHGE: Non-GE; Transferable: CSU]
- SPED 64 DISABILITY & THE LAW 4 Units**
Not Repeatable.
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 Americans With Disabilities Act, Individuals with Disabilities Act and California Special Education Law using case studies and current actions in the court system. [FHGE: Non-GE; Transferable: CSU]
- SPED 65 FUNDAMENTALS OF ATTENTION DEFICIT DISORDERS 4 Units**
Not Repeatable.
4 hours lecture.
 An overview of attention deficit disorders, subtypes, etiology, presenting symptoms, interventions and management, classroom teaching strategies, medical treatment strategies, workplace and educational accommodations, and disability law ramifications. Intended for educators, individuals with ADD and their families, or any interested student. [FHGE: Non-GE; Transferable: CSU]
- SPED 66 DISABILITY & TECHNOLOGY ACCESS 4 Units**
Not Repeatable.
4 hours lecture.
 Philosophy, legal requirements, design and use of accessible technology. [FHGE: Non-GE; Transferable: 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. [FHGE: Non-GE; Transferable: CSU]
- SPED 72 STRESS, WELLNESS & COPING 3 Units**
Not Repeatable.
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. [FHGE: Lifelong Understanding; Transferable: CSU]
- SPED 73 INTRODUCTION TO AQUATIC EXERCISE 3 Units**
Not Repeatable.
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. [FHGE: Non-GE; Transferable: CSU]
- SPED 74 PRINCIPLES OF ADAPTIVE AQUA FITNESS 3 Units**
Not Repeatable.
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. [FHGE: Non-GE; Transferable: 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. [FHGE: Non-GE; Transferable: CSU]
- SPED 80 INTRODUCTION TO COLLEGE & ACCOMMODATIONS 1 Unit**
Not Repeatable.
1 hour lecture.
 Orientation to college for the first time college student. Includes Foothill College academic policies, resources, campus, programs and services; transition concerns from high school to post-secondary for students with disabilities; California system of higher education; educational goals and program planning. This course satisfies the college orientation requirement for new students. [FHGE: Non-GE; Transferable: 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

Non-degree applicable credit course.
Prerequisite: Medically verified disability.
May be taken 2 times for credit.

2 hours lecture-laboratory.

The Transition to Work (TTW) Program is for students with disabilities who are not ready to take regular college classes. The basic English class emphasis is grammar, sentence and paragraph structure with practical applications. [FHGE: Non-GE; Transferable: Not transferable]

ALTW 202 BASIC MATH SKILLS 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.

Basic math skills for the disabled. Emphasis on basic math functions, money handling and practical applications. [FHGE: Non-GE; Transferable: Not transferable]

ALTW 203 LEARNING STYLES & STRATEGIES 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.

The Transition to Work (TTW) Learning Strategies class enables the students to explore and identify their learning styles, values, personality traits and develop a personal profile that helps them with their vocational choices. The course is designed for students with disabilities. [FHGE: Non-GE; Transferable: Not transferable]

ALTW 204 COMMUNICATION SKILLS 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.

Practical exercises in communication skills in order to increase confidence in interpersonal interactions and enhance self esteem. [FHGE: Non-GE; Transferable: Not transferable]

ALTW 205 OFFICE SKILLS FOR THE DISABLED STUDENT 2 Units

Non-degree applicable credit course.
Prerequisite: Medically verified disability.
May be taken 2 times for credit.

4 hours lecture-laboratory.

Practical office skills needed for successful employment. Focuses on filing systems, records management, and mail handling. Designed for the disabled student. [FHGE: Non-GE; Transferable: Not transferable]

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.

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. [FHGE: Non-GE; Transferable: Not transferable]

ALTW 207 RESOURCES IN THE COMMUNITY 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.

Overview of community resources for the disabled student. [FHGE: Non-GE; Transferable: Not transferable]

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. [FHGE: Non-GE; Transferable: Not transferable]

ALTW 209 SOCIAL SKILLS 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.

Enhancement of self-esteem and socialization skills in order to increase confidence in personal and social interactions. [FHGE: Non-GE; Transferable: Not transferable]

ALTW 210 OFFICE APPLICATIONS FOR THE DISABLED STUDENT 2 Units

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. Intended for students with disabilities. [FHGE: Non-GE; Transferable: Not transferable]

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, 3 hours laboratory.

This class teaches Excel to students with little computer experience. Emphasis on spreadsheets, charts and tables. Designed for the disabled student. [FHGE: Non-GE; Transferable: Not transferable]

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. [FHGE: Non-GE; Transferable: Not transferable]

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. [FHGE: Non-GE; Transferable: Not transferable]

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. [FHGE: Non-GE; Transferable: Not transferable]

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. [FHGE: Non-GE; Transferable: Not transferable]

ALTW 216 DISABILITY & THE LAW 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.
 Understanding basic citizens' rights and responsibilities. Emphasis on the Americans with Disabilities Act (ADA). [FHGE: Non-GE; Transferable: Not transferable]

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.
 Intermediate word processing, spreadsheet and file management skills for the disabled student. Emphasis on office applications needed for employment. [FHGE: Non-GE; Transferable: Not transferable]

ALTW 218 CURRENT EVENTS 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.
 Survey of current events for the disabled student. [FHGE: Non-GE; Transferable: Not transferable]

ALTW 219 USING THE INTERNET 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.
 Hands-on introduction and use of the Internet for the disabled student. [FHGE: Non-GE; Transferable: Not transferable]

ALTW 401 ELIGIBILITY ASSESSMENT FOR THE DISABLED STUDENT 0 Units
 Non-degree applicable non-credit course.
 Prerequisite: Medically verified disability.
 Unlimited repeatability.
 12 hours total.
 Evaluation and assessment to determine eligibility for the Transition to Work (TTW) Program. [FHGE: Non-GE; Transferable: Not transferable]

ALTW 402 TRANSITION TO WORK ORIENTATION 0 Units
 Non-degree applicable non-credit course.
 Prerequisite: Medically verified disability.
 Unlimited repeatability.
 18 hours total.
 Orientation to the Transition to Work Program and campus policies, resources and services. Formulation of the Student Educational Contract (SEC). [FHGE: Non-GE; Transferable: Not transferable]

ADAPTIVE PHYSICAL EDUCATION

Adaptive Learning (650) 949-7017
www.foothill.edu/al/

ALAP 52 INTRODUCTION TO CONCEPTS OF .5 Unit
ALAP 52X PHYSICAL FITNESS FOR THE DISABLED 1 Unit
ALAP 52Y 1.5 Units

Prerequisite: Medically verified disability.
 May be taken 6 times for credit.
 2 hours lecture-laboratory for each .5 unit of credit.
 Designed to help student develop an understanding of the concept of physical fitness and its components. Learn to measure and evaluate present level of physical fitness. Develop understanding and skill involved in injury prevention and first aid. Enrollment is limited to 6 times within the ALAP 52 group. [FHGE: Lifelong Understanding; Transferable: Not transferable]

ALAP 60 GENERAL CONDITIONING FOR .5 Unit
ALAP 60X THE DISABLED 1 Unit

Prerequisite: Medically verified disability.
 May be taken 6 times for credit.
 2 hours laboratory for each .5 unit of credit.
 Personal instruction in exercise programs to develop a comprehensive exercise program based on physician's recommendations, physical abilities and individual goals. Cardiovascular endurance, flexibility, muscular strength and endurance, balance and/ or motor skills, as appropriate. Exercise program include circuit training. Enrollment is limited to 6 times within the ALAP 60 group. [FHGE: Lifelong Understanding; Transferable: CSU]

ALAP 61 RESISTIVE EXERCISE FOR .5 Unit
ALAP 61X THE DISABLED 1 Unit

Prerequisite: Medically verified disability.
 May be taken 6 times for credit.
 2 hours laboratory for each .5 unit of credit.
 Designed to instruct students in methodologies for increasing muscular strength. Uses free weights, weight machines, as appropriate. Teaches skills necessary to prepare students for mainstreamed physical education. Enrollment is limited to 6 times within the ALAP 61 group. [FHGE: Lifelong Understanding; Transferable: CSU]

ALAP 62 INDIVIDUALIZED EXERCISE FOR .5 Unit
ALAP 62X THE DISABLED 1 Unit

Prerequisite: Medically verified disability.
 May be taken 6 times for credit.
 2 hours laboratory for each .5 unit of credit.
 Cardiovascular endurance, muscular endurance and strength, flexibility, balance and coordination activities, motor skills, as appropriate. Emphasis on adapting and developing an exercise program to meet individual needs and goals. Enrollment is limited to 6 times within the ALAP 62 group. [FHGE: Lifelong Understanding; Transferable: CSU]

ALAP 63 POSTURAL FITNESS FOR .5 Unit
ALAP 63X THE DISABLED 1 Unit

Prerequisite: Medically verified disability.
 May be taken 6 times for credit.
 2 hours laboratory for each .5 unit of credit.
 Exercises for improving body mechanics for those with musculo-skeletal impairments. Body mechanics and lumbar spine stabilization. Enrollment is limited to 6 times within the ALAP 63 group. [FHGE: Lifelong Understanding; Transferable: CSU]

ALAP 64 AEROBIC DANCE FOR THE DISABLED .5 Unit
ALAP 64X 1 Unit
Prerequisite: Medically verified disability.
May be taken 6 times for credit.
2 hours laboratory for each .5 unit of credit.
 Aerobic dance, individually modified for those with physical limitations, designed to increase cardiovascular and muscular endurance. Combination of exercise and low-impact dance movements. Emphasis on rhythm, balance, locomotor and coordination activities, as appropriate. Enrollment is limited to 6 times within the ALAP 64 group. [FHGE: Lifelong Understanding; Transferable: CSU]

ALAP 66 FUNCTIONAL FITNESS FOR .5 Unit
ALAP 66X THE DISABLED 1 Unit
Prerequisite: Medically verified disability.
May be taken 6 times for credit.
2 hours laboratory for each .5 unit of credit.
 Exercises for improving activities of daily living. Emphasis on proper body mechanics, postures and movement patterns. Development of joint mobility, muscular strength, muscular endurance, balance, coordination and locomotion as it relates to daily activities. Enrollment is limited to 6 times within the ALAP 66 group. [FHGE: Lifelong Understanding; Transferable: CSU]

ALAP 67 BALANCE & FUNCTIONAL MOVEMENT .5 Unit
ALAP 67X FOR THE DISABLED 1 Unit
Prerequisite: Medically verified disability.
May be taken 6 times for credit.
2 hours laboratory for each .5 unit of credit.
 Balance training to enhance coordination, balance and neuromuscular function. Emphasis on enhancing functional movement, movement efficiency resulting in improved posture, and functional movement experiences. Enrollment is limited to 6 times within the ALAP 67 group. [FHGE: Non-GE; Transferable: CSU]

ALAP 68 FUNCTIONAL TRAINING FOR THE 1 Unit
ADAPTIVE ENDURANCE ATHLETE
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. [FHGE: Non-GE; Transferable: CSU]

ALAP 70 ADAPTIVE AQUATICS FOR .5 Unit
ALAP 70X THE DISABLED 1 Unit
Prerequisite: Medically verified disability.
May be taken 6 times for credit.
2 hours laboratory for each .5 unit of credit.
 Individualized swimming instruction to improve cardiovascular endurance. Enrollment is limited to 6 times within the ALAP 70 group. [FHGE: Lifelong Understanding; Transferable: CSU]

ALAP 71 AQUACIZE FOR THE DISABLED .5 Unit
ALAP 71X 1 Unit
Prerequisite: Medically verified disability.
May be taken 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. Enrollment is limited to 6 times within the ALAP 71 group. [FHGE: Lifelong Understanding; Transferable: CSU]

ALAP 80 TEAM SPORTS FOR THE DISABLED .5 Unit
ALAP 80X 1 Unit
Prerequisite: Medically verified disability.
May be taken 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. Enrollment is limited to 6 times within the ALAP 80 group. [FHGE: Lifelong Understanding; Transferable: CSU]

ADVERTISING

Business & Social Sciences (650) 949-7322
www.foothill.edu/bss/

ADVT 57 PRINCIPLES OF ADVERTISING 4 Units
Advisory: Not open to students with credit in BUSI 57.
Not Repeatable.
4 hours lecture.
 Introduction to the relationship between advertising and society, the 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. [FHGE: Non-GE; Transferable: CSU]

ALLIED HEALTH SCIENCES

Biological & Health Sciences (650) 949-7249
www.foothill.edu/bio/

AHS 200 ORIENTATION TO HEALTH 3 Units
CARE CAREERS
Not Repeatable.
3 hours lecture.
 Orientation to Foothill College health care programs preparing students to differentiate among the health care professions and to enter the profession of their choice. Defining the American health care system. Discussion of professionalism, ethics, legal issues, death and dying, medical terminology, infection control, governmental regulations, cultural diversity, and academic skills, related to allied health careers. [FHGE: Non-GE; Transferable: Not transferable]

ANTHROPOLOGY

Business & Social Sciences (650) 949-7322
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ANTH 1 INTRODUCTION TO 4 Units
PHYSICAL ANTHROPOLOGY
Not Repeatable.
4 hours lecture.
 Survey and investigation of the basic processes of evolution 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 effect of them upon future humankind. [FHGE: Natural Sciences, Social & Behavioral Sciences; Transferable: UC/CSU]

ANTH 1L PHYSICAL 1 Unit
ANTHROPOLOGY LABORATORY
Corequisite: Completion of, or concurrent enrollment in ANTH 1.
Not Repeatable.
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. [FHGE: Natural Sciences; Transferable: UC/CSU]

<p>ANTH 2A CULTURAL ANTHROPOLOGY 4 Units Not Repeatable. 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. [FHGE: Social & Behavioral Sciences; Transferable: UC/CSU]</p>	<p>ANTH 8L ARCHAEOLOGY LABORATORY 1 Unit ANTH 8LX 2 Units ANTH 8LY 3 Units May be taken 6 times for credit. 3 hours laboratory for each unit of credit. Laboratory methods and techniques of archaeology, including cataloging, care and analysis of artifacts, bone recognition, and archaeological excavation. Enrollment is limited to 6 times within the ANTH 8L group. [FHGE: Non-GE; Transferable: UC/CSU]</p>
<p>ANTH 2B PATTERNS OF CULTURE 4 Units Not Repeatable. 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. [FHGE: Social & Behavioral Sciences; Transferable: UC/CSU]</p>	<p>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. [FHGE: Non-GE; Transferable: CSU]</p>
<p>ANTH 3 PREHISTORY: THE SEARCH FOR LOST CIVILIZATIONS 4 Units Not Repeatable. 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. [FHGE: Social & Behavioral Sciences; Transferable: UC/CSU]</p>	<p>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. [FHGE: Non-GE; Transferable: CSU]</p>
<p>ANTH 4 FIRST PEOPLES OF NORTH AMERICA 4 Units Not Repeatable. 4 hours lecture. Survey of Native American 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. [FHGE: United States Cultures & Communities, Social & Behavioral Sciences; Transferable: UC/CSU]</p>	<p>ANTH 12 APPLIED ANTHROPOLOGY 4 Units Not Repeatable. 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. [FHGE: Social & Behavioral Sciences; Transferable: UC/CSU]</p>
<p>ANTH 5 MAGIC, SCIENCE & RELIGION 4 Units Not Repeatable. 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. [FHGE: Social & Behavioral Sciences; Transferable: UC/CSU]</p>	<p>ANTH 20 NATIVE PEOPLES OF CALIFORNIA 4 Units Not Repeatable. 4 hours lecture. Study of the many cultures of the different native inhabitants of California from the prehistoric period to the present time. Covers an introduction to the diversity and complexity of aboriginal California. Includes the environmental adaptation, material culture, social structure, ideology, and response to change. Examines the impact of the other Native, European, Asian and African groups on those cultures as well as the contributions of Native Californians to the cultures of the Americas. [FHGE: Non-GE; Transferable: UC/CSU]</p>
<p>ANTH 6 PEOPLES OF AFRICA 4 Units Not Repeatable. 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. [FHGE: Social & Behavioral Sciences; Transferable: UC/CSU]</p>	<p>ANTH 22 THE AZTEC, MAYA & THEIR PREDECESSORS 4 Units Not Repeatable. 4 hours lecture. Survey of the origin, spread, and decline of pre-Columbian civilizations in Central America with a focus on the Maya and Aztec. Applies understandings of archaeology and cultural anthropology to examine the dynamics economic, social, political, cultural, and religious systems of Mesoamerica over time. Covers the colonization process by the Spanish and current day indigenous issues in Mesoamerica. [Transferable: UC/CSU]</p>
<p>ANTH 8 INTRODUCTION TO ARCHAEOLOGY 4 Units Not Repeatable. 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. [FHGE: Social & Behavioral Sciences; Transferable: UC/CSU]</p>	

ANTH 34H HONORS INSTITUTE SEMINAR IN ANTHROPOLOGY 1 Unit

Formerly: ANTH 34

Prerequisite: Honors Institute participant.

Not Repeatable.

1 hour lecture.

A seminar in directed readings, discussions and projects in anthropology. Specific topics to be determined by the instructor. [FHGE: Non-GE; Transferable: CSU]

ANTH 35 DEPARTMENT HONORS PROJECTS IN ANTHROPOLOGY 1 Unit

May be taken 6 times for credit.

1 hour lecture.

Seminar in readings, research, critical techniques and practice. Specific topics vary. [FHGE: Non-GE; Transferable: CSU]

ANTH 36 SPECIAL PROJECTS IN ANTHROPOLOGY 1 Unit

ANTH 36X 2 Units

ANTH 36Y 3 Units

ANTH 36Z 4 Units

May be taken 6 times for credit.

1 hour lecture for each unit of credit.

Advanced readings, research and/or projects in anthropology. Specific topics determined in consultation with instructor. Enrollment is limited to 6 times within the ANTH 36 group. [FHGE: Non-GE; Transferable: CSU]

ANTH 50 MEDICAL ANTHROPOLOGY: METHODS & PRACTICE 4 Units

Not Repeatable.

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. [FHGE: Non-GE; Transferable: 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 who are 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, call:

Electrician, Residential & Inside Wireman
San Jose, (408) 453-1022; San Francisco, (415) 587-2500

Elevator Construction
San Francisco, (415) 285-2900

Ironworking
Fresno, (559) 497-1295

Plumbing, Pipefitting, Refrigeration, Heating & 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

Sound & Communication
San Jose, (408) 453-3101; San Francisco, (415) 587-2500

APPRENTICESHIP: ELECTRICIAN

Business & Social Sciences

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APEL 112 RESIDENTIAL ELECTRICAL AIR CONDITIONING & REFRIGERATION; TELEPHONE SYSTEMS 3 Units

Formerly: APRT 112

Prerequisites: Admission to the Electrical Apprenticeship Program; current employment in the electrical trades industry.

Advisory: Not open to students with credit in APRT 112.

Not Repeatable.

6.25 hours lecture-laboratory.

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. [FHGE: Non-GE; Transferable: Not transferable]

APEL 113 RESIDENTIAL ELECTRICAL SYSTEMS: BASIC SECURITY, SOLAR POWER, HOME AUTOMATION & LIFE SAFETY 3 Units

Formerly: APRT 113

Prerequisites: Admission to the Electrical Apprenticeship Program; current employment in the electrical trades industry.

Advisory: Not open to students with credit in APRT 113.

Not Repeatable.

6.25 hours lecture-laboratory.

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. [FHGE: Non-GE; Transferable: Not transferable]

APEL 120 ORIENTATION TO THE ELECTRICAL TRADE 4 Units

Formerly: APRT 120

Prerequisites: Admission to the Electrical Apprenticeship Program; current employment in the electrical trades industry; MATH 105, 108 or equivalent.

Advisory: Not open to students with credit in C E 120 or APRT 120.

Not Repeatable.

8 hours lecture-laboratory.

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. [FHGE: Non-GE; Transferable: Not transferable]

APEL 121 ELECTRON THEORY; BASIC BLUEPRINT READING; DC THEORY; NATIONAL ELECTRICAL CODE INTRODUCTION 4 Units

Formerly: APRT 121

Advisory: Not open to students with credit in C E 121 or APRT 121.

Corerequisites: Completion of, or concurrent enrollment in APEL 120 or equivalent.

Not Repeatable.

8 hours lecture-laboratory.

Introduction to the National Electrical Code (NEC), DC theory, principles of magnetism and electromagnetism, basic blueprint reading. Discussion of job skills and wiring methods. [FHGE: Non-GE; Transferable: Not transferable]

<p>APEL 122 CODEOLOGY; TEST EQUIPMENT; PIPE BENDING; BLUEPRINTS 4 Units</p> <p><i>Formerly: APRT 122</i> Advisory: Not open to students with credit in APRT 122 or C E 122. Corequisite: Completion of, or concurrent enrollment in APEL 120. Not Repeatable. 8 hours lecture-laboratory. 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. [FHGE: Non-GE; Transferable: Not transferable]</p>	<p>APEL 127 DIGITAL ELECTRONICS; MOTOR SPEED CONTROL; ADVANCED NATIONAL ELECTRICAL CODE 4 Units</p> <p><i>Formerly: APRT 127</i> Prerequisites: APRT 120 or equivalent. Advisory: Not open to students with credit in APRT 127 or C E 127. Not Repeatable. 8 hours lecture-laboratory. 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. [FHGE: Non-GE; Transferable: Not transferable]</p>
<p>APEL 123 AC THEORY; TRANSFORMERS; INTERMEDIATE NATIONAL ELECTRICAL CODE 4 Units</p> <p><i>Formerly: APRT 123</i> Advisory: Not open to students with credit in APRT 123 or C E 123. Corequisite: Completion of, or concurrent enrollment in APEL 122. Not Repeatable. 8 hours lecture-laboratory. Study of AC theory, transformer fundamental design and function. Expanded study of the National Electrical Code. [FHGE: Non-GE; Transferable: Not transferable]</p>	<p>APEL 127A DIGITAL ELECTRONICS; MOTOR SPEED CONTROL 2 Units</p> <p>Prerequisite: APEL 120 or equivalent. Not Repeatable. 4 hours lecture-laboratory. Introduction to the principles of motor speed control and electric motor drives that are pertinent to apprentice electricians. Review of AC and DC theory. [FHGE: Non-GE; Transferable: Not transferable]</p>
<p>APEL 124 DC/AC THEORY REVIEW; ELECTRONICS; INDUSTRIAL BLUEPRINTS 4 Units</p> <p><i>Formerly: APRT 124</i> Prerequisites: Admission to the Electrical Apprenticeship Program; current employment in the electrical trades industry. Advisory: Not open to student with credit in C E 124 or APRT 124. Not Repeatable. 8 hours lecture-laboratory. Review of DC/AC theory. Study of electronics principles and applications, and industrial blueprint reading. [FHGE: Non-GE; Transferable: Not transferable]</p>	<p>APEL 128 PROGRAMMABLE LOGIC CONTROLLERS; LOW VOLTAGE SYSTEMS & HIGH VOLTAGE SYSTEMS 4 Units</p> <p><i>Formerly: APRT 128</i> Prerequisites: Admission to the Electrical Apprenticeship Program; current employment in the electrical trades industry. Advisory: Not open to students with credit in APRT 128 or C E 128. Not Repeatable. 8 hours lecture-laboratory. Introduction to programmable controllers, alarm systems, telephone wiring, instrumentation, and high voltage testing. [FHGE: Non-GE; Transferable: Not transferable]</p>
<p>APEL 125 NEC GROUNDING; OVERCURRENT PROTECTION; TRANSFORMER CONNECTIONS 4 Units</p> <p><i>Formerly: APRT 125</i> Prerequisites: Admission to the Electrical Apprenticeship Program; current employment in the electrical trades industry. Advisory: Not open to students with credit in APRT 125 or C E 125. Not Repeatable. 8 hours lecture-laboratory. Lessons in grounding and bonding, overcurrent protection and load calculations. Identification of different transformer connections. [FHGE: Non-GE; Transferable: Not transferable]</p>	<p>APEL 129 NATIONAL ELECTRICAL CODE REVIEW 4 Units</p> <p><i>Formerly: APRT 129</i> Prerequisites: Admission to the Electrical Apprenticeship Program; current employment in the electrical trades industry. Advisory: Not open to students with credit in APRT 129 or C E 129. Not Repeatable. 8 hours lecture-laboratory. Review of the National Electrical Code and preparation for the California State Certification Test. Jobsite management. System testing. Fiber Optics. Heating, air conditioning and refrigeration systems. [FHGE: Non-GE; Transferable: Not transferable]</p>
<p>APEL 126 MOTORS; MOTOR CONTROL; LIGHTING PROTECTION 4 Units</p> <p><i>Formerly: APRT 126</i> Prerequisites: Admission to the Electrical Apprenticeship Program; current employment in the electrical trades industry. Advisory: Not open to students with credit in APRT 126 or C E 126. Not Repeatable. 8 hours lecture-laboratory. 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. [FHGE: Non-GE; Transferable: Not transferable]</p>	<p>APEL 129A ELECTRICAL SYSTEMS 2 Units</p> <p>Prerequisites: Admission to the San Francisco Electrical Apprenticeship; current employment in the San Francisco Inside Wireman Electrical Trade. Not Repeatable. 4 hours lecture-laboratory. This class will cover the 2005 National Electrical Code & Electrical Systems based on the 2005 NEC. [FHGE: Non-GE; Transferable: Not transferable]</p>
	<p>APEL 129B BASIC ESTIMATING/TAKE-OFF & ELECTRICAL SAFETY-RELATED WORK PRACTICES 2 Units</p> <p>Prerequisites: Admission to the San Francisco Electrical Apprenticeship; current employment in the San Francisco Inside Wireman Electrical Trade. Not Repeatable. 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. [FHGE: Non-GE; Transferable: Not transferable]</p>

APEL 130 OSHA SAFETY & HEALTH 2 Units

Prerequisites: Admission to the Electrical Apprenticeship Program; current employment in the electrical trades industry.
Not Repeatable.

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. [FHGE: Non-GE; Transferable: Not transferable]

APEL 135 RESIDENTIAL ELECTRICAL ORIENTATION; SAFETY & CODE INTRODUCTION 3 Units

Formerly: APRT 135

Prerequisites: 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. [FHGE: Non-GE; Transferable: Not transferable]

APEL 136 RESIDENTIAL ELECTRICAL D/C THEORY; BLUEPRINT READING 3 Units

Formerly: APRT 136

Prerequisites: Admission to the Electrical Apprenticeship Program; current employment in the electrical trades industry.

Advisory: Not open to student with credit in APRT 136.

Not Repeatable.

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. [FHGE: Non-GE; Transferable: Not transferable]

APEL 137 RESIDENTIAL ELECTRICAL A/C THEORY & CIRCUITRY 3 Units

Formerly: APRT 137

Prerequisites: Admission to the Electrical Apprenticeship Program; current employment in the electrical trades industry.

Advisory: Not open to students with credit in APRT 137.

Not Repeatable.

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. [FHGE: Non-GE; Transferable: Not transferable]

APEL 138 RESIDENTIAL WIRING LAYOUT & INSTALLATION 3 Units

Formerly: APRT 138

Prerequisites: Admission to the Electrical Apprenticeship Program; current employment in the electrical trades industry.

Advisory: Not open to students with credit in APRT 138.

Not Repeatable.

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. [FHGE: Non-GE; Transferable: Not transferable]

APPRENTICESHIP: IRONWORKERS

Business & Social Sciences

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APIW 100 INTRODUCTION TO IRONWORKING 3 Units

Formerly: APPR 170

Prerequisites: Admission to Ironworkers Apprenticeship Program; current employment in the ironworking industry.

Not Repeatable.

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. [FHGE: Non-GE; Transferable: Not transferable]

APIW 101 MIXED BASE 2 Units

Formerly: APPR 171

Prerequisites: Admission to Ironworkers Apprenticeship Program; current employment in the ironworking industry.

Not Repeatable.

3.33 hours lecture-laboratory.

Introduction to blueprint reading and continuation of basic trade mathematics. [FHGE: Non-GE; Transferable: Not transferable]

APIW 102 REINFORCING IRON I 2 Units

Formerly: APPR 172

Prerequisites: Admission to Ironworkers Apprenticeship Program; current employment in the ironworking industry.

Not Repeatable.

3.33 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. [FHGE: Non-GE; Transferable: Not transferable]

APIW 103 RIGGING I 2 Units

Formerly: APPR 173

Prerequisites: Admission to Ironworkers Apprenticeship Program; current employment in the ironworking industry.

Not Repeatable.

3.33 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. [FHGE: Non-GE; Transferable: Not transferable]

APIW 104 IRONWORKER HISTORY & TRADE SCIENCE 2 Units

Formerly: APPR 174

Prerequisites: Admission to Ironworkers Apprenticeship Program; current employment in the ironworking industry.

Not Repeatable.

3.33 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. [FHGE: Non-GE; Transferable: Not transferable]

APIW 105 WELDING I 2 Units

Formerly: APPR 175

Prerequisites: Admission to Ironworkers Apprenticeship Program; current employment in the ironworking industry.

Not Repeatable.

3.33 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. [FHGE: Non-GE; Transferable: Not transferable]

- APIW 106 STRUCTURAL I 2 Units**
Formerly: APPR 176
 Prerequisites: Admission to Ironworkers Apprenticeship Program; current employment in the ironworking industry.
 Not Repeatable.
 3.33 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. Scaffold user course. Sub-part R safety training. [FHGE: Non-GE; Transferable: Not transferable]
- APIW 107 WELDING II 2 Units**
Formerly: APPR 177
 Prerequisites: Admission to Ironworkers Apprenticeship Program; approved by the California State Division of Apprenticeship Standards. Not Repeatable.
 3.33 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. [FHGE: Non-GE; Transferable: Not transferable]
- APIW 108 STRUCTURAL II 2 Units**
Formerly: APPR 178
 Prerequisites: Admission to Ironworkers Apprenticeship Program; current employment in the ironworking industry.
 Not Repeatable.
 3.33 hours lecture-laboratory.
 Advanced safety, principles, and applications of scaffolding, Scaffold Erector/Dismantler Certification included. The course also covers overviews on the erection of Bridges, Towers, Wind Turbines, Clear Span, Amusement Park Structures and how to use Composite materials in Structural erection. Installation of Metal Decking and sheeting is included. [FHGE: Non-GE; Transferable: Not transferable]
- APIW 109 POST-TENSIONING I 2 Units**
Formerly: APPR 179
 Prerequisites: Admission to Ironworkers Apprenticeship Program; current employment in the ironworking industry.
 Not Repeatable.
 3.33 hours lecture-laboratory.
 History of post-tensioning, modern efforts and safety advantages. Special materials, preparation and stressing of post-tensioning systems. Special applications of post-tensioning systems. Discussion of thread-bar post-tensioning systems. [FHGE: Non-GE; Transferable: Not transferable]
- APIW 110 ARCHITECTURAL I 2 Units**
Formerly: APPR 182A
 Prerequisites: Admission to Ironworkers Apprenticeship Program; current employment in the ironworking industry.
 Not Repeatable.
 3.33 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. [FHGE: Non-GE; Transferable: Not transferable]
- APIW 111 ARCHITECTURAL II 2 Units**
Formerly: APPR 182B
 Prerequisites: Admission to Ironworkers Apprenticeship Program; current employment in the ironworking industry.
 Not Repeatable.
 3.33 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. [FHGE: Non-GE; Transferable: Not transferable]
- APIW 112 LEAD HAZARD TRAINING 2 Units**
Formerly: APRT 185
 Prerequisites: Admission to Ironworkers Apprenticeship Program; current employment in the ironworking industry.
 Not Repeatable.
 3.33 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 ^ American Red Cross. [FHGE: Non-GE; Transferable: Not transferable]
- APIW 113 SMALL STRUCTURE ERECTION 2 Units**
Formerly: APRT 188
 Prerequisites: Admission to Ironworkers Apprenticeship Program; current employment in the ironworking industry.
 Not Repeatable.
 3.33 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. [FHGE: Non-GE; Transferable: Not transferable]
- APIW 114 WELDING III 2 Units**
 Prerequisites: Admission to Ironworkers Apprenticeship Program; current employment in the ironworking industry.
 Not Repeatable.
 3.33 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. [FHGE: Non-GE; Transferable: Not transferable]
- APIW 115 CRANES 2 Units**
 Prerequisites: Admission to Ironworkers Apprenticeship Program; current employment in the ironworking industry.
 Not Repeatable.
 3.33 hours lecture-laboratory.
 This course is designed to provide the Iron Worker student with training in how to erect and dismantle mobile cranes, describe principles of crane operation, identify quadrants of crane operation, read crane load charts, identify crane capacity factors, plan pre-lift planning and set up, describe mobile crane operating procedures, and erect, climb, dismantle and transport tower cranes. [FHGE: Non-GE; Transferable: Not transferable]
- APIW 116 FOREMAN TRAINING 2 Units**
 Prerequisites: Admission to Ironworkers Apprenticeship Program; current employment in the ironworking industry.
 Not Repeatable.
 3.33 hours lecture-laboratory.
 Prepares the student with the roles and responsibilities of the Foreman. In addition, students learn how to create an effective work team, communicate effectively, apply problem-solving skills, document and maintain records, maintain labor-management relations, plan and schedule work, implement a safety program and ensure the quality of work. [FHGE: Non-GE; Transferable: Not transferable]

APPRENTICESHIP: PIPE TRADES

Business & Social Sciences

(650) 949-7142

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APPT 121 INTRODUCTION TO RESIDENTIAL PLUMBING, SAFETY & TOOLS 2.5 Units

Formerly: APRT 190

Prerequisites: Admission to the Plumbing/Steamfitting Apprenticeship Program; current employment in the pipe trades industry.

Not Repeatable.

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. [FHGE: Non-GE; Transferable: Not transferable]

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.

Not Repeatable.

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. [FHGE: Non-GE; Transferable: Not transferable]

APPT 123 RESIDENTIAL GAS & WATER INSTALLATIONS 2.5 Units

Formerly: APRT 181

Prerequisites: Admission to the Residential Plumbing Apprenticeship Program; current employment in the pipe trades industry.

Not Repeatable.

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. [FHGE: Non-GE; Transferable: Not transferable]

APPT 124 MATHEMATICS FOR RESIDENTIAL PLUMBING 2.5 Units

Formerly: APRT 195

Prerequisites: Admission to the Residential Plumbing Apprenticeship Program; current employment in the pipe trades industry.

Not Repeatable.

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. [FHGE: Non-GE; Transferable: Not transferable]

APPT 125 RESIDENTIAL BLUEPRINT READING 4.5 Units

Formerly: APRT 196

Prerequisites: Admission to the Residential Plumbing Apprenticeship Program; current employment in the pipe trades industry.

Not Repeatable.

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. [FHGE: Non-GE; Transferable: Not transferable]

APPT 126 RESIDENTIAL PIPING LAYOUT & INSTALLATION; RESIDENTIAL FIXTURES 4.5 Units

Formerly: APRT 197

Prerequisites: Admission to the Residential Plumbing Apprenticeship Program; current employment in the pipe trades industry.

Not Repeatable.

9 hours lecture-laboratory.

This course will introduce the student to the various methods of inserting and sleeving in 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. [FHGE: Non-GE; Transferable: Not transferable]

APPT 127 RESIDENTIAL PLUMBING CODE 2.5 Units

Formerly: APRT 192

Prerequisites: Admission to the Residential Plumbing Apprenticeship Program; current employment in the pipe trades industry.

Not Repeatable.

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. [FHGE: Non-GE; Transferable: Not transferable]

APPT 128 RESIDENTIAL GAS INSTALLATIONS; SERVICE WORK 2.5 Units

Formerly: APRT 183

Prerequisites: Admission to the Residential Plumbing Apprenticeship Program; current employment in the pipe trades industry.

Not Repeatable.

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. [FHGE: Non-GE; Transferable: Not transferable]

APPT 129 SPECIAL TOPICS 2.5 Units

Formerly: APPR 109

Prerequisites: Admission to the Plumbing/Steamfitting/Refrigeration Apprenticeship Program; current employment in the pipe trades industry.

Not Repeatable.

4.5 hours lecture-laboratory.

A study of special topics: Study pipe trade related software and computer assisted drawing. Develop advanced welding skills. Introduce concepts of digital controls. Certify in repair of back flow control devices. Further examine management techniques for planning and organizing projects. [FHGE: Non-GE; Transferable: Not transferable]

APPT 130 REVIEW & TURNOUT 2.5 Units

Formerly: APPR 130

Prerequisites: Admission to the Plumbing/Steamfitting/Refrigeration Apprenticeship Program; current employment in the pipe trades industry.

Not Repeatable.

4.5 hours lecture-laboratory.

A comprehensive overview of the entire plumbing, steamfitting, and refrigeration courses of instruction and preparation for completion examinations. Presentation of the latest current code and safety information. Planning and performing hands on piping projects. Perform hands on trouble shooting projects for air conditioning systems. [FHGE: Non-GE; Transferable: Not transferable]

APPT 131 P-101 BASIC PLUMBING SKILLS 4.5 Units

Formerly: APPR 110

Prerequisites: Admission to the Plumbing Apprenticeship Program; current employment in the pipe trades industry.

Not Repeatable.

9 hours lecture-laboratory.

This course starts with orientation to the apprenticeship program, JATC policies and procedures. UA history and heritage will also be covered at this time. Safety training is introduced next, with instruction in general construction safety. This is followed up with necessary trade skills including, use & care of tools, pipe & tube installations and soldering & brazing. [FHGE: Non-GE; Transferable: Not transferable]

APPT 132 P-102 APPLIED & RELATED THEORY 4.5 Units

Formerly: APPR 102

Prerequisites: Admission to the Plumbing Apprenticeship Program; current employment in the pipe trades industry.

Not Repeatable.

9 hours lecture-laboratory.

This course offers a review of basic math before introducing new concepts including pipe measuring and calculation of simple offsets. Students will learn fundamental scientific principles related to the installation and design of basic plumbing systems. Installation and design of fuel gas piping and drainage systems will also be studied. [FHGE: Non-GE; Transferable: Not transferable]

APPT 133 P-201 BEGINNING DRAWING & DESIGN 4.5 Units

Formerly: APPR 112

Prerequisite: Admission to the Plumbing Apprenticeship Program; current employment in the pipe trades industry.

Not Repeatable.

9 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. [FHGE: Non-GE; Transferable: Not transferable]

APPT 134A P-202A RIGGING; LAYOUT 2.5 Units

Formerly: APPR 113

Prerequisites: Admission to the Plumbing Apprenticeship Program; current employment in the pipe trades industry.

Not Repeatable.

4.5 hours lecture-laboratory.

In this course apprentices will receive instruction in identification and tying various types of knots, study hands on safe practices of rigging and hoisting piping materials. Further they will receive instruction in the use of a transit, builder's level, laser level 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. [FHGE: Non-GE; Transferable: Not transferable]

APPT 134B INDUSTRIAL SAFETY 2.5 Units

Prerequisites: Admission to the Plumbing/Steamfitting Apprenticeship Program; current employment in the pipe trades industry.

Not Repeatable.

4.5 hours lecture-laboratory.

Study in the requirements for emergency response to and handling of hazardous materials. Laws of chemical hazards, electrical hazards, personal protective equipment, and confined spaces, monitoring equipment, and Federal and Cal-OSHA Standards for the construction industry will be covered. [FHGE: Non-GE; Transferable: Not transferable]

APPT 135A P-301A PLUMBING FIXTURES 2.5 Units

Formerly: APPR 116

Prerequisites: Admission to the Plumbing Apprenticeship Program; current employment in the pipe trades industry.

Not Repeatable.

4.5 hours lecture-laboratory.

This course offers instruction in plumbing fixtures and appliances. Names and design features of various plumbing fixtures will be discussed. Proper installation, maintenance and repair of fixtures and appliances will be studied. [FHGE: Non-GE; Transferable: Not transferable]

APPT 135B P-301B PLUMBING CODES 2.5 Units

Formerly: APPR 119

Prerequisites: Admission to the Plumbing Apprenticeship Program; current employment in the pipe trades industry.

Not Repeatable.

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. [FHGE: Non-GE; Transferable: Not transferable]

APPT 136 P-302 ADVANCED TRADE MATH FOR PLUMBERS 4.5 Units

Formerly: APPR 118

Prerequisites: Admission to the Plumbing Apprenticeship Program; current employment in the pipe trades industry.

Not Repeatable.

9 hours lecture-laboratory.

This course focuses on extensive use of piping formulas to solve typical piping layout calculations. Students will calculate compound offsets and accurately determine center to center and end to end piping measurements for plumbing systems. [FHGE: Non-GE; Transferable: Not transferable]

APPT 137A P 401A WATER SYSTEMS 2.5 Units

Prerequisites: Admission to the Plumbing Apprenticeship Program; current employment in the pipe trades industry.

Not Repeatable.

4.5 hours lecture-laboratory.

Instruction will be provided in the development and operation of domestic and industrial water supply and distribution systems for installation and operation. An overview of water sources, methods used to plan and configure supply, purification and distribution systems, for operation and maintenance. [FHGE: Non-GE; Transferable: Not transferable]

APPT 137B P-401B APPLIED WELDING 2.5 Units

Formerly: APPR 117

Prerequisites: Admission to the Plumbing Apprenticeship Program; current employment in the pipe trades industry.

Not Repeatable.

4.5 hours lecture-laboratory.

This course offers instruction and practice in oxy-fuel cutting, oxy-fuel welding and arc welding of steel plate and pipe. Safety and accuracy in measuring, lay-out and torch handling is emphasized. [FHGE: Non-GE; Transferable: Not transferable]

APPT 138 P 402 ADVANCED DRAWING & BLUEPRINT READING 4.5 Units

Formerly: APPR 114

Prerequisites: Admission to the Plumbing/Steamfitting Apprenticeship Program; current employment in the pipe trades industry.

Not Repeatable.

9 hours lecture-laboratory.

This course provides instruction in interpretation of orthographic and isometric drawings and building plans that make up working drawings for the proper installation of piping systems. Standard graphic symbols used to represent piping, fittings and valves on construction drawings will be covered, as well as various construction methods and materials, specifications and submittals. Apprentices are provided hands on exercises in the creation and coordination of shop drawings. [FHGE: Non-GE; Transferable: Not transferable]

APPT 139A INDUSTRIAL INSTALLATIONS 2.5 Units

Formerly: APPT 139

Prerequisites: Admission to the Plumbing Apprenticeship Program; current employment in the pipe trades industry.

Advisory: Not open to students with credit in APPT 139.

Not Repeatable.

4.5 hours lecture-laboratory.

This course focuses on process piping and high purity water piping systems (HPW) and will cover hazards associated with these installations. Water treatment and clean steam parameters for the pharmaceutical and biotech manufacturing industries will also be presented. Pneumatic control systems will be covered including the identification, and installation of regulators and valves, pneumatic tubing and use of air compressors and refrigerated air-dryers. Control systems will also be discussed. The apprentice will get hands-on experience with tube bending. [FHGE: Non-GE; Transferable: Not transferable]

APPT 139B MEDICAL GAS INSTALLATIONS 2.5 Units

Prerequisites: Admission to the Plumbing Apprenticeship Program; current employment in the pipe trades industry.

Not Repeatable.

4.5 hours lecture-laboratory.

Instruction in this course will include installation procedures of medical gas and vacuum systems. Apprentices will learn about station outlets/inlets, manufactured assemblies and pressure/vacuum indicators. Brazing requirements will be described and proper techniques will be demonstrated. Apprentices will practice brazing techniques in order to prepare for the brazing qualification exam. [FHGE: Non-GE; Transferable: Not transferable]

APPT 141 SF 101 BASIC STEAMFITTING SKILLS 4.5 Units

Formerly: APPR 123

Prerequisites: Admission to the Steamfitting Apprenticeship Program; current employment in the pipe trades industry.

Not Repeatable.

9 hours lecture-laboratory.

This course starts with orientation to the apprenticeship program, JATC policies and procedures. UA history and heritage will also be covered at this time. Safety training is introduced next, with instruction in general construction safety. This is followed up with necessary trade skills, including, use & care of tools, pipe & tube installations and soldering & brazing. [FHGE: Non-GE; Transferable: Not transferable]

APPT 142 SF 102 RELATED MATH, DRAWING & RIGGING 4.5 Units

Formerly: APPR 124

Prerequisites: Admission to the Steamfitting Apprenticeship Program; current employment in the pipe trades industry.

Not Repeatable.

9 hours lecture-laboratory.

This course offers a review of basic math before introducing new concepts including pipe measuring and calculation of simple offsets. Students will then learn drawing fundamentals before moving to instruction in isometric drawing. Further, they will receive instruction in identification and tying various types of knots, study hands on safe practices of rigging and hoisting piping materials. [FHGE: Non-GE; Transferable: Not transferable]

APPT 143 SF 201 STEAMFITTER CUTTING & WELDING 4.5 Units

Formerly: APPR 122

Prerequisites: Admission to the Plumbing Apprenticeship Program; current employment in the pipe trades industry.

Not Repeatable.

9 hours lecture-laboratory.

This course offers instruction and practice in oxy-fuel cutting, oxy-fuel welding and arc welding of steel plate and pipe. Safety and accuracy in measuring, lay-out and torch handling is emphasized. [FHGE: Non-GE; Transferable: Not transferable]

APPT 144A SF 202A SCIENCE; ELECTRICITY & AIR CONDITIONING 2.5 Units

Formerly: APPR 126

Prerequisites: Admission to the Steamfitting Apprenticeship Program; current employment in the pipe trades industry.

Not Repeatable.

4.5 hours lecture-laboratory.

This course develops the foundation for subsequent courses through instruction in the fundamentals of science, electrical theory and circuitry, and the principles of refrigeration and air conditioning. [FHGE: Non-GE; Transferable: Not transferable]

APPT 145 SF 301 ADVANCED TRADE MATH FOR STEAMFITTERS 4.5 Units

Formerly: APPR 121

Prerequisites: Admission to the Plumbing Apprenticeship Program; current employment in the pipe trades industry.

Not Repeatable.

9 hours lecture-laboratory.

This course focuses on extensive use of piping formulas to solve typical piping layout calculations. Students will calculate compound offsets and accurately determine center to center and end to end piping measurements. [FHGE: Non-GE; Transferable: Not transferable]

APPT 146 SF 302 STEAM TECHNOLOGY 4.5 Units

Formerly: APPR 127

Prerequisites: Admission to the Plumbing/Steamfitting Apprenticeship Program; current employment in the pipe trades industry.

Not Repeatable.

9 hours lecture-laboratory.

Study in the basic properties and concepts of steam. Instruction on steam traps, installation techniques and general operation. One-pipe systems will be compared to two-pipe systems. Instruction will focus on the importance of steam piping, proper pipe sizing, expansion joints and connections. Heat transfer devices and steam boilers will also be discussed with focus on types and proper installation and connection methods. [FHGE: Non-GE; Transferable: Not transferable]

APPT 147A SF 401A HYDRONIC SYSTEMS 2.5 Units

Formerly: APPR 125

Prerequisites: Admission to the Plumbing/Steamfitting Apprenticeship Program; current employment in the pipe trades industry.

Not Repeatable.

4.5 hours lecture-laboratory.

In this course, apprentices will learn the basic principles of various hydronic systems including equipment selection, pipe sizing, piping connections and proper installation methods. In addition they will learn start, test and balance procedures. [FHGE: Non-GE; Transferable: Not transferable]

APPT 147B SF 401B INDUSTRIAL RIGGING 2.5 Units

Formerly: APPT 180

Prerequisites: Admission to the Plumbing/Steamfitting Apprenticeship Program; current employment in the pipe trades industry.

Not Repeatable.

4.5 hours lecture-laboratory.

Apprentices will learn about the appropriate knots required for specific rigging operations. Rigging safety protocol will be reviewed which will include health and safety legislation and the responsibilities of specified rigging personnel. Apprentices will learn crane signals and will practice rigging skills both through observation and hands-on activities. [FHGE: Non-GE; Transferable: Not transferable]

<p>APPT 148 SF 402 ADVANCED DRAWING & BLUEPRINT READING 4.5 Units</p> <p><i>Formerly: APPR 120</i> Prerequisites: Admission to the Plumbing Apprenticeship Program; current employment in the pipe trades industry. Not Repeatable. 9 hours lecture-laboratory. This course begins with a study of technical drawings, piping drawings, building plans, specifications and submittals. Interpretation of three view, plan view, elevation view and isometric drawings will be discussed. Apprentices are provided hands-on exercises in the process of creating coordinated drawings beginning with sketching principles, calculating and drawing, and finishing with drawing coordination and system design. [FHGE: Non-GE; Transferable: Not transferable]</p>	<p>APPT 155 RF 301 ADVANCED ELECTRIC CONTROLS 4.5 Units</p> <p><i>Formerly: APPR 140</i> Prerequisites: Admission to the Plumbing Trade Apprenticeship Program; current employment in the pipe trades industry. Not Repeatable. 9 hours lecture-laboratory. Apprentices will learn advanced principles of electric controls used for mechanical equipment in the HVAC industry. Study control diagrams and further develop skills and service procedures used to troubleshoot electrical problems in HVACR equipment. [FHGE: Non-GE; Transferable: Not transferable]</p>
<p>APPT 151 RF 101 BASIC REFRIGERATION SERVICE SKILLS 4.5 Units</p> <p><i>Formerly: APPR 131</i> Prerequisites: Admission to the Refrigeration Apprenticeship Program; current employment in the pipe trades industry. Not Repeatable. 9 hours lecture-laboratory. This course starts with orientation to the apprenticeship program, JATC policies and procedures. 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. This is followed up with necessary trade skills including, pipe & tube installations and soldering & brazing. [FHGE: Non-GE; Transferable: Not transferable]</p>	<p>APPT 156 RF 302 HVAC PNEUMATIC & ELECTRONIC CONTROL SYSTEMS 4.5 Units</p> <p><i>Formerly: APPR 135</i> Prerequisites: Admission to the Plumbing/Steamfitting/Refrigeration Apprenticeship Program; current employment in the pipe trades industry. Not Repeatable. 9 hours lecture-laboratory. This course includes an introduction to HVAC fundamentals, energy sources and control system principals. The main focus is on pneumatic, electrical, electronic and building automation control systems and components. [FHGE: Non-GE; Transferable: Not transferable]</p>
<p>APPT 152 RF 102 BASIC ELECTRICITY & REFRIGERATION 4.5 Units</p> <p><i>Formerly: APPR 132</i> Prerequisites: Admission to the Refrigeration Apprenticeship Program; current employment in the pipe trades industry. Not Repeatable. 9 hours lecture-laboratory. Apprentices will learn the laws pertaining to basic electrical theory and their application to mechanical equipment service. Refrigeration theory and application of the vapor compression cycle will also be covered. [FHGE: Non-GE; Transferable: Not transferable]</p>	<p>APPT 157 RF 401 INDUSTRIAL REFRIGERATION & AIR-CONDITIONING SERVICE 4.5 Units</p> <p><i>Formerly: APPR 107</i> Prerequisites: Admission to Plumbing, Steamfitting Refrigeration Apprenticeship Program; current employment in the pipe trades industry. Not Repeatable. 9 hours lecture-laboratory. Apprentices will learn skills used in servicing industrial Refrigeration and Air conditioning systems. Alignment and repair of circulating pumps and compressors will be covered as well as industrial valve applications and repair. Rigging procedures, refrigerant handling and basic office computer skills will also be covered in computer lab. [FHGE: Non-GE; Transferable: Not transferable]</p>
<p>APPT 153 RF 201 MECHANICAL SYSTEMS 4.5 Units</p> <p><i>Formerly: APPR 133C</i> Prerequisites: Admission to the Plumbing/Steamfitting Apprenticeship Program; current employment in the pipe trades industry. Not Repeatable. 9 hours lecture-laboratory. This course will cover basic and advanced refrigeration concepts. This will be followed by an extensive study of the design, assembly, and operation of compression systems. It will include liquid and vapor control, metering devices, system components, and piping design. [FHGE: Non-GE; Transferable: Not transferable]</p>	<p>APPT 158 RF 402 ADVANCED REFRIGERATION & CHILLERS 4.5 Units</p> <p><i>Formerly: APPR 108</i> Prerequisites: Admission to the Plumbing Apprenticeship Program; current employment in the pipe trades industry. Not Repeatable. 9 hours lecture-laboratory. This course will include a study of the operation and design of positive displacement water chillers and commercial boilers and boiler room equipment. Single-stage and multi-stage centrifugal water chillers will also be covered. Students will learn methods of evaluating chiller performance and develop troubleshooting skills. [FHGE: Non-GE; Transferable: Not transferable]</p>
<p>APPT 154 RF 202 ELECTRIC CONTROLS FUNDAMENTALS 4.5 Units</p> <p><i>Formerly: APPR 134</i> Prerequisites: Admission to the Plumbing/Steamfitting/Refrigeration Apprenticeship Program; current employment in the pipe trades industry. Not Repeatable. 9 hours lecture-laboratory. This course covers fundamentals of electrical controls related to HVAC and refrigeration equipment. Students will assemble and wire actual electrical components and controls. [FHGE: Non-GE; Transferable: Not transferable]</p>	<p>APPT 159 RF 501 START, TEST & BALANCE; HVAC SYSTEMS 4.5 Units</p> <p><i>Formerly: APPR 149A</i> Prerequisites: Admission to the Plumbing Trade Apprenticeship Program; current employment in the plumbing/refrigeration trade. Not Repeatable. 9 hours lecture-laboratory. Students will train in the use of balancing instruments and devices for HVACR systems. The theory and operation of mechanical systems, equipment and testing instruments will be covered. This course stresses the necessity of comprehending the design and intent for the mechanical project, the proper use of testing apparatus and the production of professional reports. [FHGE: Non-GE; Transferable: Not transferable]</p>

APPT 161 SAFETY/TOOLS/HERITAGE/SERVICE 4 Units
Prerequisites: Indenture in the Plumbing Apprenticeship Program; approved by the California State Division of Apprenticeship Standards. **Not Repeatable.**
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. [FHGE: Non-GE; Transferable: Not transferable]

APPT 162 MATHEMATICS/SCIENCE FOR THE PLUMBING TRADE 4.5 Units
Prerequisites: Indenture in the Plumbing Apprenticeship Program; approved by the California State Division of Apprenticeship Standards. **Not Repeatable.**
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. [FHGE: Non-GE; Transferable: Not transferable]

APPT 163 CODE/WATER SUPPLY SYSTEMS 4 Units
Prerequisites: Indenture in the Plumbing Apprenticeship Program; approved by the California State Division of Apprenticeship Standards. **Not Repeatable.**
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. [FHGE: Non-GE; Transferable: Not transferable]

APPT 164 DRAWING I FOR THE PLUMBING TRADE 4.5 Units
Prerequisites: Indenture in the Plumbing Apprenticeship Program; approved by the California State Division of Apprenticeship Standards. **Not Repeatable.**
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. [FHGE: Non-GE; Transferable: Not transferable]

APPT 165 DRAWING II FOR THE PLUMBING TRADE 4 Units
Prerequisites: Indenture in the Plumbing Apprenticeship Program; approved by the California State Division of Apprenticeship Standards. **Not Repeatable.**
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. [FHGE: Non-GE; Transferable: Not transferable]

APPT 166 WELDING/OXY-ACETYLENE TRAINING 4.5 Units
Prerequisites: Indenture in the Plumbing Apprenticeship Program; approved by the California State Division of Apprenticeship Standards. **Not Repeatable.**
8.5 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. [FHGE: Non-GE; Transferable: Not transferable]

APPT 167 STEAM SYSTEMS/RIGGING/PIPE FITTING & SERVICE 4 Units
Prerequisites: Indenture in the Plumbing Apprenticeship Program; approved by the California State Division of Apprenticeship Standards. **Not Repeatable.**
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. [FHGE: Non-GE; Transferable: Not transferable]

APPT 168 MEDICAL GAS/HYDRONICS 4.5 Units
Prerequisites: Indenture in the Plumbing Apprenticeship Program; approved by the California State Division of Apprenticeship Standards. **Not Repeatable.**
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. [FHGE: Non-GE; Transferable: Not transferable]

APPT 169 ADVANCED DRAWING/LAYOUT FOR THE PLUMBING TRADES 4 Units
Prerequisites: Indenture in the Plumbing Apprenticeship Program; approved by the California State Division of Apprenticeship Standards. **Not Repeatable.**
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. [FHGE: Non-GE; Transferable: Not transferable]

APPT 170 CODE II/JUNIOR MECHANICS REVIEW & EXAM 4.5 Units
Prerequisites: Indenture in the Plumbing Apprenticeship Program; approved by the California State Division of Apprenticeship Standards. **Not Repeatable.**
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. [FHGE: Non-GE; Transferable: Not transferable]

APPT 171 BASIC REFRIGERATION/HERITAGE/CFC 4 Units
Prerequisites: Indenture in the Refrigeration & Air Conditioning Apprenticeship Program; approved by the California State Division of Apprenticeship Standards. **Not Repeatable.**
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. [FHGE: Non-GE; Transferable: Not transferable]

APPT 172 REFRIGERATION SCIENCE 4.5 Units
Prerequisites: Indenture in the Refrigeration & Air Conditioning Apprenticeship Program; approved by the California State Division of Apprenticeship Standards. **Not Repeatable.**
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. [FHGE: Non-GE; Transferable: Not transferable]

APPT 173 BASIC ELECTRICITY FOR THE HVAC SERVICE TRADE 4 Units

Prerequisites: Indenture in the Refrigeration & Air Conditioning Apprenticeship Program; approved by the California State Division of Apprenticeship Standards.
Not Repeatable.

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 Ohm's Law. Students will be expected to apply these theories in the laboratory using electronic and testing instruments. [FHGE: Non-GE; Transferable: Not transferable]

APPT 174 ADVANCED ELECTRICITY/PNEUMATIC DDC INTRODUCTION 4.5 Units

Prerequisites: Indenture in the Refrigeration & Air Conditioning Apprenticeship Program; approved by the California State Division of Apprenticeship Standards.

Not Repeatable.

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. [FHGE: Non-GE; Transferable: Not transferable]

APPT 175 CONTROLS I/ELECTRO PNEUMATICS 4 Units

Prerequisites: Indenture in the Refrigeration & Air Conditioning Apprenticeship Program; approved by the California State Division of Apprenticeship Standards.

Not Repeatable.

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. [FHGE: Non-GE; Transferable: Not transferable]

APPT 176 CONTROLS II/ADVANCED PNEUMATICS CALIBRATION/HYDRONICS 4.5 Units

Prerequisites: Indenture in the Refrigeration & Air Conditioning Apprenticeship Program; approved by the California State Division of Apprenticeship Standards.

Not Repeatable.

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. [FHGE: Non-GE; Transferable: Not transferable]

APPT 177 START, TEST & BALANCE I 4 Units

Prerequisites: Indenture in the Refrigeration & Air Conditioning Apprenticeship Program; approved by the California State Division of Apprenticeship Standards.

Not Repeatable.

8.25 hours lecture-laboratory.

The first half of year four of the Refrigeration & Air Conditioning Apprenticeship program. Provide students with an introduction to Start, Test and Balance for fluid distribution. Ducting, Cooling, Fans, and Air Distribution is covered in the laboratory exercises. [FHGE: Non-GE; Transferable: Not transferable]

APPT 178 START, TEST & BALANCE II 4.5 Units

Prerequisites: Indenture in the Refrigeration & Air Conditioning Apprenticeship Program; approved by the California State Division of Apprenticeship Standards.

Not Repeatable.

8.5 hours lecture-laboratory.

The second half of year four of the Refrigeration & Air Conditioning Apprenticeship program. Provide students with a working knowledge of Start, Test and Balance for Piping Systems, Pumps, Chillers, Boilers, and Condensers. [FHGE: Non-GE; Transferable: Not transferable]

APPT 179 CHILLERS/SPECIAL SYSTEMS/HVACR STAR REVIEW 4 Units

Prerequisites: Indenture in the Refrigeration & Air Conditioning Apprenticeship Program; approved by the California State Division of Apprenticeship Standards.

Not Repeatable.

8.25 hours lecture-laboratory.

The first half of year five of the Refrigeration & Air Conditioning Apprenticeship program. Provide students with a working knowledge of pipe drafting and blueprint reading for Heating, Ventilation and Air Conditioning (HVAC) Systems. Hands-on activities include applying airsides, waterside and pressure testing systems. [FHGE: Non-GE; Transferable: Not transferable]

APPT 180 HVACR STAR REVIEW & EXIT EXAM 4.5 Units

Prerequisites: Indenture in the Refrigeration & Air Conditioning Apprenticeship Program; approved by the California State Division of Apprenticeship Standards.

Not Repeatable.

8.5 hours lecture-laboratory.

The second half of year five of the Refrigeration & Air Conditioning Apprenticeship program. Provide students with a working knowledge of Troubleshooting, Test and Repair of Refrigeration and Aair-Conditioning systems. [FHGE: Non-GE; Transferable: Not transferable]

APPT 181 STEAM FITTING & RIGGING GENERAL COURSE 4 Units

Prerequisites: Indenture in the Steam Fitting & Rigging Apprenticeship Program; approved by the California State Division of Apprenticeship Standards.

Not Repeatable.

8.25 hours lecture-laboratory.

Provide a comprehensive Instruction and review of steamfitting and installed systems including piping and general rigging practices. Upon completion, students are prepared to take the State Certification Exam for Steamfitters. [FHGE: Non-GE; Transferable: Not transferable]

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APPR 111 BASIC MATH, SCIENCE & ELECTRICITY 3 Units

Prerequisites: Admission to the Plumbing/Steamfitting Apprenticeship Program; current employment in the pipe trades industry.

Not Repeatable.

6.5 hours lecture-laboratory.

Review of basic math principles. Introduction of pipe measuring concepts and calculation of simple off-sets. Study of science and mechanics with emphasis on fundamental principles and uses of water, steam and all matter. Examines governing liquids and gases as they apply to piping systems. The study of basic electricity and fundamentals of electrical control devices will be included. [FHGE: Non-GE; Transferable: Not transferable]

APPR 117A CUTTING & WELDING FOR PLUMBERS 2 Units

Prerequisite: Admission to the Plumbing/Steamfitting Apprenticeship Program; current employment in the Pipe Trades industry.

Not Repeatable.

4.5 hours lecture-laboratory.

Introduction to flame cutting and welding technologies. Students will demonstrate safe work practices and the set-up and use of oxy-acetylene, arc welding and cutting equipment. Extensive hands-on practice will lead toward proficiency in cutting and welding processes. [FHGE: Non-GE; Transferable: Not transferable]

- APPR 132C MECHANICAL SYSTEMS 3 Units**
Prerequisites: Admission to the Plumbing/Steamfitting Apprenticeship Program; current employment in the pipe trades industry.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: Not transferable]
- APPR 139A REMEDIAL CONSTRUCTION TRADE MATH 4.5 Units**
Prerequisites: Admission to Construction Trade Apprenticeship Program; current employment in the construction industry.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: Not transferable]
- APPR 150 BASIC THEORY, USE OF TOOLS, JOB SAFETY & HEALTH 4.5 Units**
Prerequisite: Admission to Apprenticeship Program; satisfactory completion of qualifying examinations.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: Not transferable]
- APPR 151 THEORY & PRACTICE OF GAS WELDING, COPPER, CAST IRON, BRAZING, PLASTIC HOT AIR WELDING, VICTALIC, FLANGE & FLAME CUTTING 4.5 Units**
Prerequisites: Admission to Apprenticeship Program; APPR 150.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: Not transferable]
- APPR 161 AIR CONDITIONING, PNEUMATIC CONTROLS, INSTRUMENTATION & PROCESS CONTROLS 4.5 Units**
Prerequisites: Admission to Apprenticeship Program; APPR 160.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: Not transferable]
- APPR 163 REFRIGERATION ASSEMBLY & REPAIR 4.5 Units**
Prerequisite: Admission to Apprenticeship Program.
Not Repeatable.
9 hours lecture-laboratory.
 Designed to provide the apprentice with the knowledge to disassemble repair and reassemble compressors and related refrigeration equipment. [FHGE: Non-GE; Transferable: Not transferable]
- APPR 164 TRANSIT; SOLAR; SPECIAL PURPOSE INSTALLATIONS; SERVICE WORK & HUMAN RELATIONSHIP; HYDRONIC HEATING & COOLING 4.5 Units**
Prerequisite: Admission to Apprenticeship Program.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: Not transferable]
- APPR 165 APPRENTICESHIP ENERGY MANAGEMENT 4.5 Units**
Prerequisites: Admission to Plumbing/Pipefitting Apprentice Program; completion of 4 years of apprenticeship training.
Not Repeatable.
9 hours lecture-laboratory.
 Instruction and practice of computer controlled energy management for heating, cooling, and electrical. [FHGE: Non-GE; Transferable: Not transferable]
- APPR 178 STRUCTURAL II 2 Units**
Prerequisites: Admission to Ironworkers Apprenticeship Program; current employment in the ironworking industry.
Not Repeatable.
4 hours lecture-laboratory.
 Advanced safety, principles, and applications of scaffolding, mobile cranes and tower cranes. Scaffold Erector/Dismantler certification. [FHGE: Non-GE; Transferable: Not transferable]
- APPR 183A BASIC ELECTRICITY FOR SHEET METAL & AIR CONDITIONING SERVICE 4.5 Units**
Prerequisites: Admission to Sheet Metal Apprenticeship Program; current employment in the sheet metal industry.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: Not transferable]
- APPR 183B ADVANCED ELECTRICITY FOR SHEET METAL & AIR CONDITIONING SERVICE 4.5 Units**
Prerequisites: Admission to Sheet Metal Apprenticeship Program; current employment in the sheet metal industry.
Not Repeatable.
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, contacts and safety around electrical equipment. [FHGE: Non-GE; Transferable: Not transferable]
- APPR 184A AIR CONDITIONING; COMMERCIAL SYSTEMS; HEATING (FOURTH-YEAR SERVICE) 4.5 Units**
Prerequisites: Admission to Sheet Metal Apprenticeship Program; current employment in the sheet metal industry.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: Not transferable]

**APPR 184B COMMERCIAL SYSTEMS;
HEAT LOADS; PIPING
(FOURTH-YEAR SERVICE) 4.5 Units**

Prerequisites: Admission to Sheet Metal Apprenticeship Program; current employment in the sheet metal industry.
Not Repeatable.

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. [FHGE: Non-GE; Transferable: Not transferable]

**APPR 185A BASIC REFRIGERATION FOR SHEET
METAL AIR CONDITIONING SERVICE 4.5 Units**

Prerequisites: Admission to Sheet Metal Apprenticeship Program; current employment in the sheet metal industry.
Not Repeatable.

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. [FHGE: Non-GE; Transferable: Not transferable]

**APPR 185B ADVANCED REFRIGERATION
FOR SHEET METAL AIR
CONDITIONING SERVICE 4.5 Units**

Prerequisites: Admission to Sheet Metal Apprenticeship Program; current employment in the sheet metal industry; APPR 185A.
Not Repeatable.

9 hours lecture-laboratory.

Continued development of refrigeration skills with emphasis on the function of compressors, multiphase electric motors and piping systems. [FHGE: Non-GE; Transferable: Not transferable]

**APPR 186A PROPERTIES OF AIR DISTRIBUTION
FOR SHEET METAL AIR
CONDITIONING SERVICE 4.5 Units**

Prerequisites: Admission to Sheet Metal Apprenticeship Program; currently employed in the sheet metal industry; APPR 185A.
Not Repeatable.

9 hours lecture-laboratory.

Introduction to the different properties of air distribution with air volumes, pressures, humidity and temperature; basic air balance procedures. [FHGE: Non-GE; Transferable: Not transferable]

**APPR 186B REFRIGERATION THEORY
FOR SHEET METAL AIR
CONDITIONING SERVICE 4.5 Units**

Prerequisites: Admission to Sheet Metal Apprenticeship Program; current employment in the sheet metal industry; APPR 186A.
Not Repeatable.

9 hours lecture-laboratory.

Continuing refrigeration theory with emphasis on all the major parts of refrigeration systems. The explanation of the principles and function of the heat pump in a residential application. [FHGE: Non-GE; Transferable: Not transferable]

**APPR 187 INDUSTRIAL FIRST AID &
CPR TRAINING 5 Units**

Not Repeatable.

10 hours lecture-laboratory.

A standard first aid and CPR course designed to provide fundamental principles, knowledge of, and skills in, first aid, accident prevention, and CPR. Prepares persons to care for most injuries and to meet most emergencies when medical assistance is not excessively delayed. [FHGE: Non-GE; Transferable: Not transferable]

**APPR 188A ORIENTATION; SAFETY &
BEGINNING RESIDENTIAL
SHEET METAL INSTALLATION
(SPECIALIST 1A) 2.5 Units**

Prerequisites: Admission to the Sheet Metal Specialist Apprenticeship Program; current employment in the sheet metal industry.
Not Repeatable.

4.5 hours lecture-laboratory.

An introduction to residential and light commercial sheet metal installation, safety, tools, materials, equipment and related industry practices. Emphasis will be on safety and soldering techniques. [FHGE: Non-GE; Transferable: Not transferable]

**APPR 188B RESIDENTIAL COMPONENTS
IDENTIFICATION & INSTALLATION
(SPECIALIST 1B) 2.5 Units**

Prerequisites: Admission to the Sheet Metal Specialist Apprenticeship Program; current employment in the sheet metal industry.
Not Repeatable.

4.5 hours lecture-laboratory.

A continued development of concepts and practices already introduced and used in residential and light commercial installations of sheet metal ductwork. Emphasis will be on materials information and skills development. [FHGE: Non-GE; Transferable: Not transferable]

**APPR 189A RESIDENTIAL SYSTEMS; DUCT &
HVAC SYSTEMS (SPECIALIST 2A) 2.5 Units**

Prerequisites: Admission to the Sheet Metal Specialist Apprenticeship Program; current employment in the sheet metal industry.
Not Repeatable.

4.5 hours lecture-laboratory.

A study of typical residential duct systems including ventilation and exhaust systems, and HVAC systems. Development of installation techniques. [FHGE: Non-GE; Transferable: Not transferable]

**APPR 189B PLANS & ARCHITECTURAL
APPLICATIONS FOR RESIDENTIAL
SHEET METAL (SPECIALIST 2B) 2.5 Units**

Prerequisites: Admission to the Sheet Metal Specialist Apprenticeship Program; current employment in the sheet metal industry.
Not Repeatable.

4.5 hours lecture-laboratory.

An advanced study of industry standards, values and requirements in residential sheet metal work including architectural applications of metal roofing, complex flashing, gutter and downspouts. Use of plans for coordinating installations. Mathematics review and further development of soldering skills. [FHGE: Non-GE; Transferable: Not transferable]

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**APRT 106A SHEET METAL CONTROL SYSTEMS
(FIFTH-YEAR SERVICE) 4.5 Units**

Prerequisites: Admission to Sheet Metal Apprenticeship Program; current employment in the sheet metal industry.
Not Repeatable.

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. [FHGE: Non-GE; Transferable: Not transferable]

APRT 106B ENERGY MANAGEMENT & CUSTOMER SERVICE (FIFTH-YEAR SERVICE) 4.5 Units

Prerequisites: Admission to Sheet Metal Apprenticeship Program; current employment in the sheet metal industry.
Not Repeatable.

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. [FHGE: Non-GE; Transferable: Not transferable]

APRT 107A ADVANCED SHEET METAL SERVICE I 3 Units

Prerequisites: Admission to Sheet Metal Apprenticeship Program; current employment in the sheet metal industry.
Not Repeatable.

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. [FHGE: Non-GE; Transferable: Not transferable]

APRT 107B ADVANCED SHEET METAL SERVICE II 3 Units

Prerequisites: Admission to Sheet Metal Apprenticeship Program; current employment in the sheet metal industry.
Not Repeatable.

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. [FHGE: Non-GE; Transferable: Not transferable]

APRT 111 COMPUTER LITERACY FOR TRADE APPRENTICES 1.5 Units

Prerequisites: Admission to Sheet Metal Apprenticeship Program; current employment in the sheet metal industry.
Not Repeatable.

3 hours lecture-laboratory.

Introduction to general computer principles and basic computer operations. Topics will include hardware familiarity, basic system components and design, basics of file management, and beginning word processing, spreadsheet and presentation application use, as it relates to the trades. [FHGE: Non-GE; Transferable: Not transferable]

APRT 140A ELECTRICAL BASICS FOR RESIDENTIAL HVAC SERVICE I 2.5 Units

Prerequisites: Admission to Sheet Metal Residential Service Apprenticeship Program; current employment in the sheet metal industry.
Not Repeatable.

4.5 hours lecture-laboratory.

Development of basic skills necessary for service technicians to service heating and air conditioning equipment with special emphasis on the basics of electricity and air filtration. [FHGE: Non-GE; Transferable: Not transferable]

APRT 140B REFRIGERATION BASICS FOR RESIDENTIAL HVAC SERVICE 2.5 Units

Prerequisites: Admission to Sheet Metal Residential Service Apprenticeship Program; current employment in the sheet metal industry.
Not Repeatable.

4.5 hours lecture-laboratory.

Development of the basics of refrigeration principles and residential systems for service technicians to service heating and air conditioning equipment. [FHGE: Non-GE; Transferable: Not transferable]

APRT 141A COMPONENTS OF RESIDENTIAL HVAC SERVICE 2.5 Units

Prerequisites: Admission to Sheet Metal Residential Service Apprenticeship Program; current employment in the sheet metal industry.
Not Repeatable.

4.5 hours lecture-laboratory.

Identifying components and evaluating their status in servicing heating and air conditioning equipment. Discussion of the service technician's approach to field problems. [FHGE: Non-GE; Transferable: Not transferable]

APRT 141B TROUBLESHOOTING DIAGNOSIS & REPAIR FOR RESIDENTIAL HVAC SERVICE 2.5 Units

Prerequisites: Admission to Sheet Metal Residential Service Apprenticeship Program; current employment in the sheet metal industry.
Not Repeatable.

4.5 hours lecture-laboratory.

Troubleshooting approaches for HVAC equipment problems with diagnosis and repair. Testing and tracing of circuits; visual evaluations for electrical and mechanical HVAC equipment. Review and practice of all basic skills necessary for A/C residential service technicians. [FHGE: Non-GE; Transferable: Not transferable]

APRT 143A AIR BALANCE TEST EQUIPMENT & INSTRUMENTS (FIRST YEAR) 4.5 Units

Prerequisites: Admission to Sheet Metal Apprenticeship Program; current employment in the sheet metal industry.
Not Repeatable.

9 hours lecture-laboratory.

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. [FHGE: Non-GE; Transferable: Not transferable]

APRT 143B TEMPERATURE MEASUREMENT INSTRUMENTS & DUCT SYSTEMS (FIRST YEAR) 4.5 Units

Prerequisites: Admission to Sheet Metal Apprenticeship Program; current employment in the sheet metal industry.
Not Repeatable.

9 hours lecture-laboratory.

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. [FHGE: Non-GE; Transferable: Not transferable]

APRT 144A INTRODUCTION TO MARINE SHEET METAL TRAINING FOR APPRENTICES I 2.5 Units

Prerequisites: Admission to Sheet Metal Apprenticeship Program; current employment in the sheet metal industry.
Not Repeatable.

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 $\frac{3}{16}$ 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. [FHGE: Non-GE; Transferable: Not transferable]

APRT 144B INTRODUCTION TO MARINE SHEET METAL TRAINING FOR APPRENTICES II 2.5 Units

Prerequisites: Admission to Sheet Metal Apprenticeship Program; current employment in the sheet metal industry.
Not Repeatable.

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 $\frac{3}{16}$ 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. [FHGE: Non-GE; Transferable: Not transferable]

<p>APRT 145 UNIFORM MECHANICAL CODE 1.5 Units Prerequisites: Admission to Sheet Metal Apprenticeship Program; current employment in the sheet metal industry. Not Repeatable. 3 hours lecture-laboratory. 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. [FHGE: Non-GE; Transferable: Not transferable]</p>	<p>APRT 151A INTERMEDIATE MARINE 2.5 Units SHEET METAL TRAINING FOR APPRENTICES I Prerequisites: Admission to Sheet Metal Apprenticeship Program; current employment in the sheet metal industry. Not Repeatable. 4.5 hours lecture-laboratory. In-depth study of metals in sheet form up to 3/16 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. [FHGE: Non-GE; Transferable: Not transferable]</p>
<p>APRT 146 BASIC SERVICE SUPERVISION 1.5 Units & JOB MANAGEMENT; ENVIRONMENTAL SAFETY FOR SHEET METAL APPRENTICES Prerequisites: Admission to Sheet Metal Apprenticeship Program; current employment in the sheet metal industry. Not Repeatable. 3 hours lecture-laboratory. Development of skills in basic service, supervision, and job management; training in working safely around hazardous materials related to the sheet metal industry. [FHGE: Non-GE; Transferable: Not transferable]</p>	<p>APRT 153A CONTROL SYSTEMS & CUSTOMER 4.5 Units SERVICE I (TAB-4) Prerequisites: Admission to Sheet Metal Apprenticeship Program; current employment in the sheet metal industry. Not Repeatable. 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. [FHGE: Non-GE; Transferable: Not transferable]</p>
<p>APRT 149A ELECTRICAL SYSTEMS OPERATION, 4.5 Units CONTROLS & DEVICES (TAB-2) Prerequisites: Admission to Sheet Metal Apprenticeship Program; current employment in the sheet metal industry. Not Repeatable. 9 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. [FHGE: Non-GE; Transferable: Not transferable]</p>	<p>APRT 153B CONTROL SYSTEMS & CUSTOMER 4.5 Units SERVICE II (TAB-4) Prerequisites: Admission to Sheet Metal Apprenticeship Program; current employment in the sheet metal industry. Not Repeatable. 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 of customer relations in order to effectively deal with the consumer. [FHGE: Non-GE; Transferable: Not transferable]</p>
<p>APRT 149B HVAC TESTING & BALANCING 4.5 Units PROCEDURES (TAB-2) Prerequisites: Admission to Sheet Metal Apprenticeship Program; current employment in the sheet metal industry. Not Repeatable. 9 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. [FHGE: Non-GE; Transferable: Not transferable]</p>	<p>APRT 154A PROJECT MANAGEMENT FOR THE 4.5 Units TEST & AIR BALANCE INDUSTRY (TAB-5) Prerequisites: Admission to Sheet Metal Apprenticeship Program; current employment in the sheet metal industry. Not Repeatable. 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. [FHGE: Non-GE; Transferable: Not transferable]</p>
<p>APRT 150A AIR DISTRIBUTION & 4.5 Units MANUFACTURING SYSTEMS (TAB-3) Prerequisites: Admission to Sheet Metal Apprenticeship Program; current employment in the sheet metal industry. Not Repeatable. 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. [FHGE: Non-GE; Transferable: Not transferable]</p>	<p>APRT 154B HAZARDOUS MATERIAL 4.5 Units RECOGNITION FOR THE TEST & AIR BALANCE INDUSTRY (TAB-5) Prerequisites: Admission to Sheet Metal Apprenticeship Program; current employment in the sheet metal industry. Not Repeatable. 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. [FHGE: Non-GE; Transferable: Not transferable]</p>
<p>APRT 150B SYSTEMS INSTALLATION & 4.5 Units TROUBLESHOOTING (TAB-3) Prerequisites: Admission to Sheet Metal Apprenticeship Program; current employment in the sheet metal industry. Not Repeatable. 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. [FHGE: Non-GE; Transferable: Not transferable]</p>	<p>APRT 155A SAFETY & TOOLS FOR SHEET METAL 4.5 Units SIDING & DECKING APPRENTICES Prerequisites: Admission to Sheet Metal Apprenticeship Program; current employment in the sheet metal siding and decking industry. Not Repeatable. 9 hours lecture-laboratory. Develop the skills and knowledge to safely work in the Siding & Decking segment of the sheet metal industry. To understand and practice job site safety in the layout and installation of siding and decking materials. [FHGE: Non-GE; Transferable: Not transferable]</p>

APRT 155B BLUEPRINT READING FOR SHEET METAL SIDING & DECKING APPRENTICES 4.5 Units

Prerequisites: Admission to Sheet Metal Apprenticeship Program; current employment in the sheet metal siding & decking industry. **Not Repeatable.**

9 hours lecture-laboratory.

Continue to develop the skills and knowledge to safely work in the Siding & Decking segment of the sheet metal industry. To understand and practice job site safety in the layout and installation of siding and decking materials. [FHGE: Non-GE; Transferable: Not transferable]

APRT 156A WELDING FOR SHEET METAL SIDING & DECKING APPRENTICES 4.5 Units

Prerequisites: Admission to Sheet Metal Apprenticeship Program; current employment in the sheet metal industry. **Not Repeatable.**

9 hours lecture-laboratory.

Development of basic skills necessary for the siding & decking apprentice to apply in oxyacetylene, shielded metal arc, and Gas Tungsten arc welding with special emphasis on welding safety. [FHGE: Non-GE; Transferable: Not transferable]

APRT 156B MEASURING, DRAWING & LIFTING DEVICES FOR SHEET METAL SIDING & DECKING APPRENTICES 4.5 Units

Prerequisites: Admission to Sheet Metal Apprenticeship Program; current employment in the sheet metal industry. **Not Repeatable.**

9 hours lecture-laboratory.

Develop the skills and knowledge to measure, draw, fabricate and install various related sheet metal components used in the siding & decking industry. To understand and apply the proper methods of hoisting, rigging, and use of lifting devices to install products on the job. [FHGE: Non-GE; Transferable: Not transferable]

APRT 162 IBEW/NECA HISTORY FOR SOUND & COMMUNICATION 3 Units

Prerequisites: Admission to the Northern California Sound and Communications industry; current employment in the sound and communications trade. **Not Repeatable.**

6 hours lecture-laboratory.

IBEW/NECA history and orientation to the Sound and Communication industry. Discussion of the hazards of drug abuse and sexual harassment. Responsibilities of apprenticeship. History of American labor. Basic tools of the trade—their use and care; workplace safety, health, first aid and OSHA. Marketing and communications. Introduction to the National Electrical Code. General building wire properties and NEC requirements; conductor insulation and NEC specifications. Reading blueprints and drawing sketches. Architectural views; common scales; understanding specifications, elevations, schedules, structured wiring, electrical and mechanical symbols. [FHGE: Non-GE; Transferable: Not transferable]

APRT 163 TRADE MATH & COMMUNICATION ELECTRONICS FOR SOUND & COMMUNICATION 3 Units

Prerequisites: Admission to the Northern California Sound and Communications industry; current employment in the sound and communications trade. **Not Repeatable.**

6 hours lecture-laboratory.

Review of trade mathematics and electronic theory. Installation and use of fastening devices. Study of Ohm's Law. Instruction on resistance, current, voltage and power in series and parallel circuits. Practice of basic knot tying. [FHGE: Non-GE; Transferable: Not transferable]

APRT 164 INSTALLING, TERMINATING, TESTING DATA & TELEPHONE SYSTEMS FOR SOUND & COMMUNICATION 3 Units

Prerequisites: Admission to the Northern California Sound and Communications industry; current employment in the sound and communications trade. **Not Repeatable.**

6 hours 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. [FHGE: Non-GE; Transferable: Not transferable]

APRT 170 INTRODUCTION TO THE ELEVATOR CONSTRUCTOR PROGRAM 3 Units

Prerequisites: Admission to Elevator Constructor's Apprenticeship Program; current employment in the elevator industry. **Not Repeatable.**

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. [FHGE: Non-GE; Transferable: Not transferable]

APRT 171 PIT STRUCTURES; GUIDE RAILS; OVERHEAD INSTALLATION; ROPING & RE-ROPING 3 Units

Prerequisites: Admission to Elevator Constructor's Apprenticeship Program; current employment in the elevator industry. **Not Repeatable.**

6 hours lecture-laboratory.

Purpose 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. [FHGE: Non-GE; Transferable: Not transferable]

APRT 172 BASIC ELECTRICITY; ELECTRICAL CIRCUITS; ELECTROMAGNETISM 3 Units

Prerequisites: Admission to Elevator Constructor's Apprenticeship Program; current employment in the elevator industry. **Not Repeatable.**

6 hours lecture-laboratory.

Study of basic electricity and electrical safety. Relationships between voltage, current and resistance. Basic electrical circuit components, series and parallel resistive circuits, magnetism and electromagnetism, and single-phase and three-phase theory. Discussion of DC generators and motors. Applying and verifying Ohm's Law. Review of arithmetic. [FHGE: Non-GE; Transferable: Not transferable]

APRT 173 ADVANCED ELECTRICITY; VOLTAGE, CURRENT & RESISTANCE; DC GENERATORS & MOTORS 3 Units

Prerequisites: Admission to Elevator Constructor's Apprenticeship Program; current employment in the elevator industry. **Not Repeatable.**

6 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. [FHGE: Non-GE; Transferable: Not transferable]

- APRT 174 INDUSTRY ELEVATOR CONSTRUCTION TRAINING; CONSTRUCTION WIRING; DOORS & OPERATORS** 3 Units
Prerequisites: Admission to Elevator Constructor's Apprenticeship Program; current employment in the elevator industry.
Not Repeatable.
6 hours lecture-laboratory.
 Comprehensive industry elevator construction training. Process of planning, piping and wiring for the hoistway, machine room and car. Introduction to passenger and freight entrances and installations. Different types of passenger, freight and dumbwaiter doors and gates. Assembling and installing door motors. [FHGE: Non-GE; Transferable: Not transferable]
- APRT 175 HYDRAULICS FOR ELEVATOR CONSTRUCTORS; ESCALATORS & MOVING WALKS** 3 Units
Prerequisites: Admission to Elevator Constructor's Apprenticeship Program; current employment in the elevator industry.
Not Repeatable.
6 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. [FHGE: Non-GE; Transferable: Not transferable]
- APRT 176 CIRCUIT TRACING; BASIC ELEVATOR SOLID STATE ELECTRONICS** 3 Units
Prerequisites: Admission to Elevator Constructor's Apprenticeship Program; current employment in the elevator industry.
Not Repeatable.
6 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. [FHGE: Non-GE; Transferable: Not transferable]
- APRT 177 BASIC ELEVATOR SOLID STATE ELECTRONICS II** 3 Units
Prerequisites: Admission to Elevator Constructor's Apprenticeship Program; current employment in the elevator industry.
Not Repeatable.
6 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 NEIEP Mechanics Exam. [FHGE: Non-GE; Transferable: Not transferable]
- APRT 189 PRECAST CONCRETE BUILDINGS** 2 Units
Prerequisites: Admission to Ironworkers Apprenticeship Program; current employment in the ironworking industry.
Not Repeatable.
4 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. [FHGE: Non-GE; Transferable: Not transferable]
- APRT 193 TYPES & USES OF PIPE JOINTS** 2.5 Units
Prerequisites: Admission to Pipe Trades Residential Specialist Apprenticeship Program; current employment in the pipe trades industry.
Not Repeatable.
4.5 hours lecture-laboratory.
 An introduction to uses of copper, plastic, and cast iron joints. Identification and uses of special tools and equipment for joints and types of joint compounds will be presented. [FHGE: Non-GE; Transferable: Not transferable]
- APRT 194 BUILDING PLUMBING TREES** 2.5 Units
Prerequisites: Admission to Pipe Trades Residential Specialist Apprenticeship Program.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: Not transferable]
- APRT 195A INTERMEDIATE TRADE MATHEMATICS FOR PLUMBING RESIDENTIAL SPECIALISTS** 4.5 Units
Prerequisites: Admission to Pipe Trades Residential Specialist Apprenticeship Program; APRT 124.
Not Repeatable.
9 hours lecture-laboratory.
 A continuation of trade mathematics for residential specialist plumbers. Course includes advanced piping measurements and offsets. [FHGE: Non-GE; Transferable: Not transferable]
- APRT 196A INTERMEDIATE BLUEPRINT READING & ISOMETRIC DRAWING FOR PLUMBING RESIDENTIAL SPECIALISTS** 4.5 Units
Prerequisites: Admission to Pipe Trades Residential Specialist Apprenticeship Program; current employment in the pipe trades industry.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: Not transferable]
- APRT 197A INTERMEDIATE PLUMBING FIXTURES & APPLIANCES** 2.5 Units
Prerequisites: Admission to Pipe Trades Residential Specialist Apprenticeship Program; APRT 126.
4.5 hours lecture-laboratory.
 A continuation of plumbing fixtures and appliances which includes installation of plumbing fixtures, code requirements, finish tools and anchors, plumbing trim material, accessories, and special purpose installations. [FHGE: Non-GE; Transferable: Not transferable]
- APRT 198 RESIDENTIAL PLUMBING SERVICE & REPAIR** 2.5 Units
Prerequisites: Admission to Pipe Trades Residential Specialist Apprenticeship Program.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: Not transferable]

APRT 199 RESIDENTIAL MECHANICAL SERVICE 2.5 Units & REPAIR

Prerequisites: Admission to Pipe Trades Residential Specialist Apprenticeship Program.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: Not transferable]

APPRENTICESHIP: SHEET METAL

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APSM 101 SMQ-1 TRADE INTRODUCTION 1.5 Units

Prerequisite: Admission to Sheet Metal Apprenticeship Program.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: Not transferable]

APSM 102 SMQ-2 CERTIFIED SAFETY & BEGINNING TRADE MATH 1.5 Units

Prerequisite: Admission to Sheet Metal Apprenticeship Program.
Not Repeatable.
3 hours lecture-laboratory.
Introduction to OSHA and related 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. Course consists of basic arithmetic, geometry, algebra and trigonometry principles as applied in the construction trades. [FHGE: Non-GE; Transferable: Not transferable]

APSM 103 SMQ-3 SHEET METAL TOOLS & SHOP 1.5 Units

Prerequisite: Admission to Sheet Metal Apprenticeship Program; current employment in the sheet metal industry.
Not Repeatable.
3 hours lecture-laboratory.
Using sheet metal tools including hand tools and snips, shear, roll, and hand brake. Use of arithmetic and algebraic principles relating to sheet metal layout, fabrication of duct, pan, 45 degree tap-in, and plenum. Demonstration of other shop equipment used in the sheet metal industry. [FHGE: Non-GE; Transferable: Not transferable]

APSM 104 SMQ-4 SOLDERING & COMMON SEAMS 1.5 Units

Prerequisite: Admission to Sheet Metal Apprenticeship Program.
Not Repeatable.
3 hours lecture-laboratory.
Basic soldering and seam fabrication techniques. Includes soldering lap and vertical seams, soldering with various materials and flux, alternate seam fabrication, and fabrication of non-soldered seams. [FHGE: Non-GE; Transferable: Not transferable]

APSM 105 SMQ-5 DRAFTING INTRODUCTION 1.5 Units & VIEWS

Prerequisite: Admission to Sheet Metal Apprenticeship Program.
Not Repeatable.
3 hours lecture-laboratory.
Introduction to communicating construction details through drafting of plans. Topics include drafting equipment and materials, use of an architects scale, drawing format, geometric construction, basic views, square and radius elbows, and drawing duct runs. [FHGE: Non-GE; Transferable: Not transferable]

APSM 106 SMQ-6 BEGINNING DUCT FITTINGS 1.5 Units

Prerequisite: Admission to Sheet Metal Apprenticeship Program.
Not Repeatable.
3 hours lecture-laboratory.
Focus is on the variety of duct connections, sealing, elbows and transitions common to the sheet metal industry. [FHGE: Non-GE; Transferable: Not transferable]

APSM 107 SMQ-7 PARALLEL LINE FITTINGS 1.5 Units

Prerequisites: APSM 103, 106, or equivalent.
Not Repeatable.
3 hours lecture-laboratory.
Introduction to communicating construction details through drafting of plans. Topics include drafting equipment and materials, use of an architects scale, drawing format, geometric construction, basic views, square and radius elbows, and drawing duct runs. [FHGE: Non-GE; Transferable: Not transferable]

APSM 108 SMQ-8 TRIANGULATION FITTINGS 1.5 Units

Prerequisites: APSM 103, 106, or equivalent.
Not Repeatable.
3 hours lecture-laboratory.
Triangulation Fittings introduces another of three traditional sheet metal pattern development methods. Triangulation is a versatile method, often applied when other methods won't work. Between the method, practice drawings and fabricated projects, there is much to cover in this course. [FHGE: Non-GE; Transferable: Not transferable]

APSM 109 SMQ-9 RADIAL LINE LAYOUT & OGEE OFFSETS 1.5 Units

Prerequisites: APSM 103, 106, or equivalent.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: Not transferable]

APSM 110 SMQ-10 BASICS OF ARCHITECTURAL SHEET METAL 1.5 Units

Prerequisites: APSM 104, 105, or equivalent.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: Not transferable]

APSM 111 SMQ-11 ARCHITECTURAL SHEET METAL 1.5 Units

Prerequisites: APSM 110 or equivalent.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: Not transferable]

APSM 112 SMQ-12 FIELD INSTALLATION 1.5 Units

Prerequisites: APSM 102 or equivalent.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: Not transferable]

APSM 113 SMQ-13 WELDING 1: PROCESS & SAFETY OVERVIEW 1.5 Units

Prerequisites: APSM 101, 102, or equivalent.
Not Repeatable.

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. [FHGE: Non-GE; Transferable: Not transferable]

APSM 114 SMQ-14 WELDING 2: GMAW 1.5 Units

Prerequisites: APSM 101, 102, or equivalent.
Not Repeatable.

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. [FHGE: Non-GE; Transferable: Not transferable]

APSM 115 SMQ-15 WELDING 3: GMAW 1.5 Units

Prerequisites: APSM 101, 102, or equivalent.
Not Repeatable.

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. [FHGE: Non-GE; Transferable: Not transferable]

APSM 116 SMQ-16 PLANS & SPECIFICATIONS 1.5 Units

Prerequisites: APSM 105 or equivalent.
Not Repeatable.

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. [FHGE: Non-GE; Transferable: Not transferable]

APSM 117 SMQ-17 SUBMITTALS & SHOP DRAWINGS 1.5 Units

Prerequisites: APSM 116, or equivalent.
Not Repeatable.

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 from the shop drawing or submittal, and field use of drawings and submittals. [FHGE: Non-GE; Transferable: Not transferable]

APSM 118 SMQ-18 INDUSTRIAL & STAINLESS STEEL INTRODUCTION 1.5 Units

Prerequisites: APSM 102, 103, or equivalent.
Not Repeatable.

3 hours lecture-laboratory.

This course introduces heavy gage 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. [FHGE: Non-GE; Transferable: Not transferable]

APSM 119 SMQ-19 HVAC AIR SYSTEMS & DUCT DESIGN 1.5 Units

Prerequisites: APSM 106, or equivalent.
Not Repeatable.

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. [FHGE: Non-GE; Transferable: Not transferable]

APSM 120 SMQ-20 MEASURING & SKETCHING 1.5 Units

Prerequisites: APSM 105, or equivalent.
Not Repeatable.

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. [FHGE: Non-GE; Transferable: Not transferable]

APSM 121 SMQ-21 FABRICATION & SHORTCUTS 1.5 Units

Prerequisites: APSM 107, 108, 109, or equivalent.
Not Repeatable.

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. [FHGE: Non-GE; Transferable: Not transferable]

APSM 122 SMQ-22 CODES & STANDARDS 1.5 Units

Prerequisites: APSM 101, 102, 116, or equivalent.
Not Repeatable.

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. Student work with codes common to the industry and SMACNA standards to research information. [FHGE: Non-GE; Transferable: Not transferable]

APSM 123 SMQ-23 RESIDENTIAL SHEET METAL 1.5 Units

Prerequisites: APSM 101, 106, or equivalent.
Not Repeatable.

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. [FHGE: Non-GE; Transferable: Not transferable]

APSM 124 SMQ-24 METAL ROOFING 1.5 Units

Prerequisites: APSM 110, or equivalent.
Not Repeatable.

3 hours lecture-laboratory.

This is an overview of the different types of metal roofs used in the sheet metal industry, installation skills and safety concerns. 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. [FHGE: Non-GE; Transferable: Not transferable]

<p>APSM 125 SMQ-25 DETAILING 1.5 Units Prerequisites: APSM 116, 117, or equivalent. Not Repeatable. 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. [FHGE: Non-GE; Transferable: Not transferable]</p>	<p>APSM 132 SMQ-32 INTERMEDIATE CAD DETAILING 1.5 Units Prerequisite: APSM 105, 116, 127 & 131 or equivalent. Not Repeatable. 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. [FHGE: Non-GE; Transferable: Not transferable]</p>
<p>APSM 126 SMQ-26 FOREMAN TRAINING 1.5 Units Prerequisites: APSM 112, 117, 119, 120, or equivalent. Not Repeatable. 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. [FHGE: Non-GE; Transferable: Not transferable]</p>	<p>APSM 133 SMQ-33 ADVANCED ARCHITECTURAL 1.5 Units Prerequisite: Admission to the Sheet Metal Apprenticeship Program; APSM 110 or equivalent. Not Repeatable. 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. [FHGE: Non-GE; Transferable: Not transferable]</p>
<p>APSM 127 SMQ-27 BASIC AUTOCAD 1.5 Units Prerequisites: APSM 105, 116, 117, or equivalent. Not Repeatable. 3 hours lecture-laboratory. In the Basic AutoCAD class students learn how to follow the proper protocols for computer lab 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 the AutoCAD program 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. [FHGE: Non-GE; Transferable: Not transferable]</p>	<p>APSM 134 SMQ-34 ADVANCED LAYOUT FABRICATION 1.5 Units Prerequisite: Admission into the Sheet Metal Apprenticeship Program; APSM 107, 108, 109 or equivalent. Not Repeatable. 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. [FHGE: Non-GE; Transferable: Not transferable]</p>
<p>APSM 128 HVAC ENERGY CONSERVATION & ENVIRONMENTAL TECHNOLOGY 1.5 Units Prerequisite: Admission to Sheet Metal Apprenticeship Program; current employment in the sheet metal industry. Not Repeatable. 3 hours lecture-laboratory. This course is an introduction to Energy and Environmental Technologies for the sheet metal and HVAC industry. It includes an introduction to California Title 24 requirements for HVAC systems, duct system testing, assessing utility bill and equipment nameplate data, the LEED point system and basic heat transfer calculations. [FHGE: Non-GE; Transferable: Not transferable]</p>	<p>APSM 135 SMQ-35 PROJECT MANAGEMENT, TAKEOFFS & ESTIMATES 1.5 Units Prerequisite: Admission into the Sheet Metal Apprenticeship Program; APSM 112, 117, 119, 120 or equivalent. Not Repeatable. 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 a detailed estimate of a specific project. [FHGE: Non-GE; Transferable: Not transferable]</p>
<p>APSM 130 SMQ-30 ADVANCED WELDING 1.5 Units Prerequisite: APSM 101 & 102, or equivalent; APSM 114; APSM 115 or equivalent. Not Repeatable. 3 hours lecture-laboratory. Advanced techniques used in Oxy-Fuel/ Plasma cutting, GMAW, and GTAW on various types and thicknesses of base material. [FHGE: Non-GE; Transferable: Not transferable]</p>	<p>APSM 136 SMQ-36 SERVICE BASICS 1.5 Units Prerequisite: Admission into the Sheet Metal Apprenticeship Program; APSM 112, 117, 119, 120 or equivalent. Not Repeatable. 3 hours lecture-laboratory. Development of the basic skills necessary for a sheet metal worker to service a basic HVAC building system. [FHGE: Non-GE; Transferable: Not transferable]</p>
<p>APSM 131 SMQ-31 CAD DETAILING (BEGINNING CAD DUCT) 1.5 Units Prerequisite: APSM 105; APSM 116 & 117; APSM 127 or equivalent. Not Repeatable. 3 hours lecture-laboratory. Basic computer-aided design (CAD) drawing 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. [FHGE: Non-GE; Transferable: Not transferable]</p>	<p>APSM 137 SMQ-37 FINAL HVAC PROJECT 1.5 Units Prerequisite: Admission into the Apprenticeship Sheet Metal Program; APSM 112, 117, 119, 120, or equivalent. Not Repeatable. 3 hours lecture-laboratory. Design, fabricate, and install a typical HVAC system from concept design drawing to the finished installed project. [FHGE: Non-GE; Transferable: Not transferable]</p>
	<p>APSM 138 SMQ-38 FINAL ARCHITECTURAL, INDUSTRIAL, ORNAMENTAL PROJECT 1.5 Units Prerequisite: Admission to the Sheet Metal Apprenticeship Program; APSM 112, 117, 119 or equivalent. Not Repeatable. 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. [FHGE: Non-GE; Transferable: Not transferable]</p>

APPRENTICESHIP: SOUND & COMMUNICATION

Business & Social Sciences

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APSC 111 **JOB INFORMATION, SAFETY, TEST** **3.5 Units**
INSTRUMENTS, STRUCTURED
CABLING, FIBER OPTICS &
BLUEPRINT READING

Formerly: APRT 130

Prerequisite: Indentured to the Northern California Sound and Communication Joint Apprenticeship and Training Committee as an Apprentice Installer/Technician.

Not Repeatable.

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 class 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. [FHGE: Non-GE; Transferable: Not transferable]

APSC 112 **DC THEORY, CODES & PRACTICES,** **3.5 Units**
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.

Not Repeatable.

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. [FHGE: Non-GE; Transferable: Not transferable]

APSC 121 **AC THEORY, POWER QUALITY, FIRE** **3.5 Units**
ALARM SYSTEMS & GROUNDING

Formerly: APRT 132

Prerequisite: Indentured to the Northern California Sound and Communication Joint Apprenticeship and Training Committee as an Apprentice Installer/Technician.

Not Repeatable.

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. [FHGE: Non-GE; Transferable: Not transferable]

APSC 122 **SECURITY, ACCESS CONTROL,** **3.5 Units**
TELEPHONY & PAGING SYSTEMS

Formerly: APRT 133

Prerequisite: Indentured to the Northern California Sound and Communication Joint Apprenticeship and Training Committee as an Apprentice Installer/Technician.

Not Repeatable.

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. [FHGE: Non-GE; Transferable: Not transferable]

APSC 131 **SEMICONDUCTORS, NURSE CALL,** **3.5 Units**
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.

Not Repeatable.

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. [FHGE: Non-GE; Transferable: Not transferable]

APSC 132 **CCTV SYSTEMS, FIRE/LIFE SAFETY** **3.5 Units**
& VOICE DATA VIDEO (VDV) STATE
CERTIFICATION PREP

Formerly: APRT 161

Prerequisite: Indentured to the Northern California Sound and Communication Joint Apprenticeship and Training Committee as an Apprentice Installer/Technician.

Not Repeatable.

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. [FHGE: Non-GE; Transferable: Not transferable]

ART

Fine Arts & Communication

(650) 949-7584
www.foothill.edu/fa/**ART 1 INTRODUCTION TO ART 4.5 Units**
Not Repeatable.

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. [FHGE: Humanities; Transferable: UC/CSU]

ART 2A HISTORY OF ART: HISTORY OF WESTERN ART FROM PREHISTORY THROUGH EARLY CHRISTIANITY 4.5 Units

Advisory: Not open to student with credit in ART 2AH.
Not Repeatable.

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. [FHGE: Humanities; Transferable: UC/CSU]

ART 2AH HONORS ART HISTORY: HISTORY OF WESTERN ART FROM PREHISTORY THROUGH EARLY CHRISTIANITY 4.5 Units**Prerequisite: Honors Institute participant.**

Advisory: Not open to student with credit in ART 2A.
Not Repeatable.

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. [FHGE: Humanities; Transferable: UC/CSU]

ART 2B HISTORY OF WESTERN ART FROM THE MIDDLE AGES TO THE RENAISSANCE 4.5 Units

Advisory: Not open to student with credit in ART 2BH.
Not Repeatable.

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. [FHGE: Humanities; Transferable: 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 student with credit in ART 2B.
Not Repeatable.

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. [FHGE: Humanities; Transferable: 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 2CH.
Not Repeatable.

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. [FHGE: Humanities; Transferable: 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 student with credit in ART 2C.
Not Repeatable.

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. [FHGE: Humanities; Transferable: UC/CSU]

ART 2D AFRICAN, OCEANIC & NATIVE AMERICAN ART 4.5 Units**Not Repeatable.**

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 (e.g., Woodlands, Southwest, Plains, Northwest Coast, Arctic and Subarctic, etc.). [FHGE: United States Cultures & Communities, Humanities; Transferable: UC/CSU]

ART 2E A HISTORY OF WOMEN IN ART 4.5 Units

Advisory: Not open to students with credit in WMN 15.
Not Repeatable.

4 hours lecture, 1.5 hour laboratory.

A chronological, thematic, and cross-cultural examination of art works and gender issues concerning women artists from the early Middle-Ages to the 21st century. Includes the influences on art produced by women of such issues as race, gender, socio-economic and political conditions, increasing urbanization, and conceptions of nature, etc. [FHGE: Humanities; Transferable: UC/CSU]

ART 3 MODERN ART & CONTEMPORARY THOUGHT 4.5 Units**Not Repeatable.**

4 hours lecture, 1.5 hours laboratory.

A study of art and architecture from Impressionism to the present day emphasizing the importance of social, economic, and political influences on the art. This course is designed to relate contemporary artistic expression to modern thought. Lectures will be directed towards illustrating and interpreting the subjects listed in the course content. The text and references will be used to supplement these discussions. Class discussions will be encouraged and specific time set aside for this purpose. Field trips will be taken to museums. [FHGE: Non-GE; Transferable: UC/CSU]

- ART 4A DRAWING I 4 Units**
May be taken 6 times for credit.
3 hours lecture, 3 hours laboratory.
 An introduction to representational charcoal drawing to develop the ability to sketch, compose, measure proportions, render basic still life objects in shadows and light. In addition to gaining technical expertise in drawing, students will critically analyze drawings and communicate ideas in class verbal and written critiques. Students will also write, discuss and examine the processes, tools, and content of historical and contemporary drawings. Enrollment is limited to 6 times within the ART 4 group. [FHGE: Humanities; Transferable: UC/CSU]
- ART 4B DRAWING II 4 Units**
Advisory: ART 4A.
May be taken 6 times for credit.
3 hours lecture, 3 hours laboratory.
 A representational color pastel drawing class to develop the ability to draw from observation, render complex still life objects and form. In addition to gaining technical expertise in drawing with color material, students will critically analyze and communicate ideas in class verbal and written critiques. Enrollment is limited to 6 times within the ART 4 group. [FHGE: Non-GE; Transferable: UC/CSU]
- ART 4C DRAWING III 4 Units**
Advisory: ART 4A & 4B.
May be taken 6 times for credit.
3 hours lecture, 3 hours laboratory.
 A representational drawing class to develop a theme or series of individual expressive drawings. Emphasis in this class will be on personal content and a development a series of drawings for a student portfolio. In addition to gaining technical expertise in drawing from observation and rendering complex subject matter, students will critically analyze and communicate ideas in verbal and written critiques. Enrollment is limited to 6 times within the ART 4 group. [FHGE: Humanities; Transferable: UC/CSU]
- ART 4D FIGURE DRAWING 3 Units**
Advisory: ART 4A & 4B.
May be taken 6 times for credit.
6 hours lecture-laboratory.
 In this figure drawing course students will develop technical, observational, and expressive drawing skills using charcoal, pastels, ink or pencils. Students will draw from a human figure or a figure model. [FHGE: Non-GE; Transferable: UC/CSU]
- ART 4E PORTRAIT DRAWING 3 Units**
Advisory: ART 4A & 4B.
May be taken 3 times for credit.
6 hours lecture-laboratory.
 In this course students will develop technical and perceptual drawing skills as they relate sketching, measuring proportion, and rendering a person's likeness. Students will be able to draw the structure of the head, the facial features, the facial expressions and the shadow patterns from a 'head model' using pencil, charcoal or pastels. Students will be able to draw from a face, a human model, a mannequin or a plaster cast in this class. [FHGE: Humanities; Transferable: UC/CSU]
- ART 4F LANDSCAPE DRAWING 3 Units**
Not Repeatable.
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. [FHGE: Non-GE; Transferable: UC/CSU]
- ART 5A BASIC TWO-DIMENSIONAL DESIGN 4 Units**
Not Repeatable.
3 hours lecture, 3 hours laboratory.
 This class develops skills in generating design ideas, problem-solving sketches, and integrating rhythm, balance, emphasis, variety and unity in design composition. Projects will emphasize on line, shape, texture and value by using a variety of hands-on tools such as pen and ink and brush. In addition to creating two-dimensional designs, this class will hold critical discussions analyzing and writing about the elements and principles of design, design tools, techniques, terminology and content in historical, contemporary and cultural two-dimensional design works. Students will also use two-dimensional vocabulary in verbal and written class critiques. [FHGE: Humanities; Transferable: UC/CSU]
- ART 5B THREE-DIMENSIONAL DESIGN 3 Units**
Advisory: ART 4A & 5A.
Not Repeatable.
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. [FHGE: Humanities; Transferable: UC/CSU]
- ART 5L DESIGN LABORATORY 1 Unit**
Corequisite: Concurrent enrollment in ART 5A or 5B.
May be taken 3 times for credit.
3 hours laboratory.
 Supervised studio practice in design projects. [FHGE: Non-GE; Transferable: UC/CSU]
- 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. [FHGE: Non-GE; Transferable: 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. [FHGE: Non-GE; Transferable: UC/CSU]
- ART 9 TRADITIONAL ART MATERIALS 4 Units**
May be taken 2 times for credit.
3 hours lecture, 3 hours laboratory.
 An introduction to traditional art materials and techniques. Learn the tools, materials, chemistry, application and history of traditional art materials. Making paint and gesso grounds, panel preparation, egg tempera, encaustic, and oil painting glazing techniques will be covered in this course. [FHGE: Non-GE; Transferable: UC/CSU]
- ART 12 INTRODUCTION TO ASIAN ART 4.5 Units**
Not Repeatable.
4 hours lecture, 1.5 hours laboratory.
 An introduction to the art 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. [FHGE: Humanities; Transferable: UC/CSU]
- ART 13 INTRODUCTION TO ISLAMIC ART 4.5 Units**
Not Repeatable.
4 hours lecture, 1.5 hours laboratory.
 The arts and architecture of the Islamic peoples from the seventh through the 20th Century. [FHGE: Non-GE; Transferable: UC/CSU]
- ART 14 AMERICAN ART 4.5 Units**
Not Repeatable.
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. [FHGE: Humanities; Transferable: UC/CSU]

<p>ART 19A PAINTING I 3 Units Advisory: ART 4A or 5A; ART 4B or 20A. Not Repeatable. 6 hours lecture-laboratory. Studio experiences in basic techniques of painting and composition using oil and/or acrylic paints. [FHGE: Non-GE; Transferable: UC/CSU]</p>	<p>ART 38 RELIEF PRINTING 4 Units Advisory: Not open to students with credit in GID 44. May be taken 3 times for credit. 3 hours lecture, 3 hours laboratory Introduction to relief printing processes, exploring the techniques of embossing, linoleum block, and collagraph printing. Theory and practice making images for limited-edition and one-of-a-kind fine art prints. [FHGE: Non-GE; Transferable: UC/CSU]</p>
<p>ART 19B PAINTING II 3 Units Prerequisite: ART 19A. Not Repeatable. 6 hours lecture-laboratory. Continuation of ART 19A. Further studies in studio techniques. [FHGE: Non-GE; Transferable: UC/CSU]</p>	<p>ART 39 SCREENPRINTING 4 Units Advisory: Not open to students with credit in GID 46. May be taken 3 times for credit. 3 hours lecture, 3 hours laboratory. Introduction to screen printing processes, exploring the techniques of hand cut stencils, direct drawn stencils and photographic processes. Theory and practice making images for limited-edition and one-of-a-kind fine art prints. [FHGE: Non-GE; Transferable: UC/CSU]</p>
<p>ART 19C PAINTING III 3 Units Advisory: ART 19B. May be taken 2 times for credit. 6 hours lecture-laboratory. Advanced studio experiences in techniques of painting and composition using oil and/or acrylic paints. [FHGE: Non-GE; Transferable: UC/CSU]</p>	<p>ART 44 CERAMIC SCULPTURE 3 Units Prerequisite: ART 45A. Advisory: Concurrent enrollment in ART 44L or 45LX. May be taken 2 times for credit. 6 hours lecture-laboratory. Studio practice in designing and creating original ceramic sculpture. [FHGE: Non-GE; Transferable: UC/CSU]</p>
<p>ART 19L PAINTING LABORATORY 1 Unit Advisory: Pass/No Pass. Corequisite: ART 19A, 19B, or 19C. May be taken 4 times for credit. 3 hours laboratory. Supervised studio practice in painting projects. [FHGE: Non-GE; Transferable: UC/CSU]</p>	<p>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. [FHGE: Non-GE; Transferable: UC/CSU]</p>
<p>ART 20A COLOR I 3 Units Not Repeatable. 6 hours lecture-laboratory. A fundamental course in color and its creative application. [FHGE: Non-GE; Transferable: UC/CSU]</p>	<p>ART 45A BEGINNING CERAMICS HANDBUILDING 4 Units May be taken 2 times for credit. 3 hours lecture, 3 hours laboratory. An introduction to basic ceramic hand-building techniques, and its historical and contemporary significance. This class will introduce ceramic hand-building techniques including pinching, coil, and slab construction, as well as examine various high and low-fire glazing techniques. In addition to sculpting and constructing hand built vessels students will examine, critically discuss, analyze and write about clay, glaze and hand-building techniques, tools, ceramic terminology and processes of historical and contemporary clay hand-built vessels. Students will learn ceramic vocabulary, and participate in verbal and written class critiques. [FHGE: Humanities; Transferable: UC/CSU]</p>
<p>ART 20B COLOR II 3 Units Prerequisite: ART 20A. Not Repeatable. 6 hours lecture-laboratory. Continued practice in creative application of color theory with emphasis on the study of perception, simultaneous contrast and Munsell theory. [FHGE: Non-GE; Transferable: UC/CSU]</p>	<p>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. [FHGE: Non-GE; Transferable: UC/CSU]</p>
<p>ART 30 PAPER ARTS I 4 Units Advisory: Not open to students with credit in GID 30. May be taken 3 times for credit. 3 hours lecture, 3 hours laboratory. Introduction to the skills and techniques of the paper arts. Mold and cast hand-made paper from various cultures. Embedded and surface structural and decorative techniques. Construction of basic paper making tools. Exploration of paper as applied to print arts, book arts and graphic design projects. History of papermaking. Emphasis on materials, processes and techniques while exploring form and content. [FHGE: Non-GE; Transferable: CSU]</p>	<p>ART 45B BEGINNING CERAMICS POTTER'S WHEEL 4 Units May be taken 2 times for credit. 3 hours lecture, 3 hours laboratory. An introduction to throwing on the potter's wheel, and its historical and contemporary significance. This class will introduce the process of wedging clay, centering a pot, pulling a wall, shaping processes, and trimming techniques to complete well balanced forms on the potter's wheel. In addition to gaining expertise in wheel-throwing, students will</p>
<p>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. [FHGE: Non-GE; Transferable: CSU]</p>	
<p>ART 36 HISTORY OF GRAPHIC DESIGN 4 Units Advisory: Not open to students with credit in GID 1 or GRDS 36. Not Repeatable. 4 hours lecture. A study of the development of visual communication in art, graphic design, illustration and popular culture. Emphasis on the role, impact and interpretation of images, symbols, and typography used in informative and persuasive media. [Transferable: UC/CSU]</p>	
<p>ART 37 ETCHING & INTAGLIO PRINTING 4 Units Advisory: Not open to students with credit in GID 42. May be taken 3 times for credit.</p>	

examine, discuss, critique and write about the techniques, tools, ceramic terminology and processes of historical and contemporary thrown clay vessels. Students will use ceramic vocabulary in verbal and written class critiques. [FHGE: Humanities; Transferable: 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. [FHGE: Non-GE; Transferable: UC/CSU]

ART 45C ADVANCED CERAMICS 3 Units

Prerequisites: ART 45A and 45B.

Advisory: Concurrent enrollment in ART 45CL or 45LX.

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. [FHGE: Non-GE; Transferable: 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. [FHGE: Non-GE; Transferable: UC/CSU]

ART 45F LOW-TEMPERATURE CERAMIC FIRING & GLAZING TECHNIQUES 3 Units

Prerequisite: ART 45A or 45B.

Advisory: Concurrent enrollment in ART 45FL.

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. [FHGE: Non-GE; Transferable: 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. [FHGE: Non-GE; Transferable: UC/CSU]

ART 45L CERAMICS LABORATORY .5 Unit

ART 45LX 1 Unit

Advisory: Pass/No Pass.

Corequisite: Concurrent enrollment in a 2 or 3 unit ceramics course.

May be taken 2 times for credit.

2 hours laboratory for each unit of credit.

Supervised studio practice in ceramics processes, related to skills and materials of other ceramics courses in which the student is currently enrolled. [FHGE: Non-GE; Transferable: UC/CSU]

ART 46B POTTER'S WHEEL II 3 Units

Prerequisites: ART 45B.

Advisory: Concurrent enrollment in ART 45L.

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. [FHGE: Non-GE; Transferable: UC/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. [FHGE: Non-GE; Transferable: UC/CSU]

ART 49 MONOPRINTING 4 Units

Advisory: Not open to students with credit in GID 48.

May be taken 3 times for credit.

3 hours lecture, 3 hours laboratory.

Introduction to monoprinting processes, exploring the techniques of painting, drawing and stencils to make unique prints. Theory and practice making images for one-of-a-kind fine art prints. [FHGE: Non-GE; Transferable: UC/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, GRDS 56 or PHOT 75.

May be taken 3 times for credit.

3 hours lecture, 3 hours laboratory.

Introduction to using computers and software for painting, drawing, image processing, photo composites and typography. Emphasis on image making and creative problem solving. [FHGE: Non-GE; Transferable: UC/CSU]

ART 69 PRINT ARTS I 4 Units

Advisory: ART 4A and 5A; not open to students with credit in GID 38 or GRDS 69.

May be taken 3 times for credit.

3 hours lecture, 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. [FHGE: Non-GE; Transferable: UC/CSU]

ART 72 STUDIO ART PORTFOLIO PREPARATION 4 Units

Not Repeatable.

3 hours lecture, 3 hours 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. [FHGE: Non-GE; Transferable: CSU]

ART 80 MURAL MAKING: COMMUNITY ART PROJECT 3 Units

Advisory: ART 4A or 15A; ART 19A, 20A.

May be taken 2 times for credit.

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. [FHGE: Non-GE; Transferable: UC/CSU]

ART 83 SERVICE LEARNING PROJECTS 4 Units

Advisory: Entry level design and software courses.

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. [FHGE: Non-GE; Transferable: 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. [FHGE: Non-GE; Transferable: UC/CSU]

ART 87 ART OF THE ELECTRONIC AGE 2 Units
Not Repeatable.
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. [FHGE: Non-GE; Transferable: CSU]

ART 96 BOOK ARTS I 4 Units
Advisory: Not open to students with credit in GID 90 or GRDS 96.
May be taken 3 times for credit.
3 hours lecture, 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. [FHGE: Non-GE; Transferable: 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.
May be taken 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. Enrollment is limited to 6 times within the ART 190 group. [FHGE: Non-GE; Transferable: Not transferable]

ASTRONOMY

Physical Sciences, Mathematics & Engineering (650) 949-7259
www.foothill.edu/ast/

ASTR 10A GENERAL ASTRONOMY: SOLAR SYSTEM 5 Units
Advisory: Concurrent enrollment in ASTR 10L.
Not Repeatable.
5 hours lecture.
 Non-technical introduction to astronomy, with emphasis on the planets, dwarf planets, moons, and smaller bodies which make up our solar system, as well as the scientific search for life elsewhere in the universe. Topics include the nature of light, the atom, and telescopes, an examination of the planets and their moons and rings, dwarf planets, comets, asteroids, and meteors, catastrophic events (including the impact that may have killed the dinosaurs), the search for planets and life around other stars, the challenges of space travel, and modern views on extraterrestrial contact. No background in science or math is assumed. [FHGE: Natural Sciences; Transferable: UC/CSU]

ASTR 10B GENERAL ASTRONOMY: STAR, GALAXIES, COSMOLOGY 5 Units
Advisory: Concurrent enrollment in ASTR 10L; not open to students with credit in ASTR 10BH.
Not Repeatable.
5 hours lecture.
 Non-technical introduction to astronomy, with emphasis on stars, galaxies, and the origin and evolution of the universe. Topics covered include the nature of light, atoms, and telescopes; the birth, evolution, and death of stars (including an introduction to black holes); the Milky Way Galaxy and its development over time; normal galaxies, active

galaxies, and cannibal galaxies; and the Big Bang model (of the origin and ultimate fate of the cosmos). No background in science or math is assumed. [FHGE: Natural Sciences; Transferable: UC/CSU]

ASTR 10BH HONORS GENERAL ASTRONOMY: STARS, GALAXIES, COSMOLOGY 5 Units
Prerequisite: Honors Institute participant.
Advisory: Not open to students with credit in ASTR 10B.
Corequisite: ASTR 34H.
Not Repeatable.
5 hours lecture.
 A non-technical introduction to astronomy, with an emphasis on stars, galaxies, and the origin and evolution of the universe, with additional material for honors students. Topics covered include the nature of light, atoms, and telescopes; the birth, evolution, and death of stars (including an introduction to black holes); the Milky Way Galaxy and its development over time; normal galaxies, active galaxies, and cannibal galaxies; and the Big Bang model (of the origin and ultimate fate of the cosmos.) The honors section offers a challenging intellectual environment which covers the same outline as the general class but in more depth. The students will also apply the classroom knowledge and research in developing a deeper appreciation for the stellar astronomy. [FHGE: Natural Sciences; Transferable: UC/CSU]

ASTR 10L ASTRONOMY LABORATORY 1 Unit
Corequisite: ASTR 10A, 10B or 10BH.
Not Repeatable.
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. [FHGE: Natural Sciences; Transferable: UC/CSU]

ASTR 34H HONORS INSTITUTE SEMINAR IN ASTRONOMY 1 Unit
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 10BH.
Not Repeatable.
1 hour lecture.
 A seminar in directed readings, discussions and projects in astronomy. Specific topics to be determined by the instructor. [FHGE: Non-GE; Transferable: CSU]

ASTR 36 SPECIAL PROJECTS IN ASTRONOMY 1 Unit
ASTR 36X 2 Units
ASTR 36Y 3 Units
May be taken 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. Enrollment is limited to 6 times within the ASTR 36 group. [FHGE: Non-GE; Transferable: CSU]

BIOLOGY

Biological & Health Sciences (650) 949-7249
www.foothill.edu/bio/programs/biosci/

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 its entirety. Not Repeatable.

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. [FHGE: Non-GE; Transferable: 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 its entirety. Not Repeatable.

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. Intended for biology majors. [FHGE: Non-GE; Transferable: UC/CSU]

BIOL 1C EVOLUTION, SYSTEMATICS & ECOLOGY 6 Units

Prerequisite: BIOL 1B.

Advisory: Students taking the biology majors' sequence (BIOL 1A, 1B, 1C, 1D) are strongly advised to take the sequence in its entirety. Not Repeatable.

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, archaea, protists, plants, animals and fungi) and their evolutionary history. Intended for biology majors. [FHGE: Non-GE; Transferable: 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. Not Repeatable.

4 hours lecture.

An introduction to molecular biology with an emphasis in molecular genetics, cell communication, and developmental biology. [FHGE: Non-GE; Transferable: UC/CSU]

BIOL 8 BASIC NUTRITION 5 Units

Advisory: MATH 200; eligibility for ENGL 1A.

Not Repeatable.

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. [FHGE: Lifelong Understanding; Transferable: UC/CSU]

BIOL 9 ENVIRONMENTAL BIOLOGY 4 Units

Not Repeatable.

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. [FHGE: Lifelong Understanding, Naturas Sciences; Transferable: UC/CSU]

BIOL 9L ENVIRONMENTAL BIOLOGY LABORATORY 1 Unit

Corequisite: BIOL 9.

Not Repeatable.

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. [FHGE: Natural Sciences; Transferable: UC/CSU]

BIOL 10 GENERAL BIOLOGY: BASIC PRINCIPLES 5 Units

Not Repeatable.

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. [FHGE: Natural Sciences; Transferable: UC/CSU]

BIOL 12 HUMAN GENETICS 4 Units

Not Repeatable.

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. [FHGE: Lifelong Understanding; Transferable: UC/CSU]

BIOL 13 MARINE BIOLOGY 5 Units

Not Repeatable.

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. [FHGE: Natural Sciences; Transferable: UC/CSU]

BIOL 14 HUMAN BIOLOGY 5 Units

Not Repeatable.

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 of 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. [FHGE: United States Cultures & Communities, Naturas Sciences; Transferable: UC/CSU]

BIOL 15 CALIFORNIA ECOLOGY/ NATURAL HISTORY 5 Units

Not Repeatable.

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. [FHGE: Natural Sciences; Transferable: UC/CSU]

BIOL 17 BIOTECHNOLOGY & SOCIETY 4 Units
Not Repeatable.
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. [Transferable: UC/CSU]

BIOL 34H HONORS INSTITUTE SEMINAR IN BIOLOGY 1 Unit

Formerly: BIOL 34

Prerequisite: Honors Institute participant.

Advisory: Not open to students with credit in BIOL 34.

Not Repeatable.

1 hour lecture.

A seminar in directed readings, discussions and projects in biology. Specific topics to be determined by the instructor. [FHGE: Non-GE; Transferable: CSU]

BIOL 40A HUMAN ANATOMY & PHYSIOLOGY I 5 Units

Prerequisites: High school biology or BIOL 10 or BIOL 14 or equivalent; high school chemistry or CHEM 30A or equivalent.

Advisory: ENGL 1A, ESLL 26 or equivalent.

Not Repeatable.

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. [FHGE: Non-GE; Transferable: UC/CSU]

BIOL 40B HUMAN ANATOMY & PHYSIOLOGY II 5 Units

Prerequisites: BIOL 40A or equivalent.

Not Repeatable.

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. [FHGE: Non-GE; Transferable: UC/CSU]

BIOL 40C HUMAN ANATOMY & PHYSIOLOGY III 5 Units

Prerequisites: BIOL 40B or equivalent.

Not Repeatable.

4 hours lecture, 1 hour lecture-laboratory, 2 hours laboratory.

Anatomy and physiology of the digestive system; metabolism; urinary 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. [FHGE: Non-GE; Transferable: UC/CSU]

BIOL 41 MICROBIOLOGY 6 Units

Prerequisite: High school chemistry or CHEM 30A.

Advisory: ESLL 25 and 235; critical reading skills and knowledge of English sentence structure, and ability to comprehend spoken English in academic context.

Not Repeatable.

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, antiseptics and chemotherapy. [FHGE: Natural Sciences; Transferable: UC/CSU]

BIOL 45 INTRODUCTION TO HUMAN NUTRITION 4 Units

Prerequisites: CHEM 30A or 1 year of high school chemistry.

Advisory: ENGL 1A or ESLL 26.

Corequisite: Completion of or concurrent enrollment in BIOL 40A or 40C.

Not Repeatable.

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. [FHGE: Lifelong Understanding; Transferable: UC/CSU]

BIOL 58 FUNDAMENTALS OF PHARMACOLOGY 4 Units

Formerly: BIOL 46

Prerequisites: CHEM 30B; BIOL 40A, 40B.

Advisory: ENGL 1A or ESLL 26.

Corequisite: Completion of, or concurrent enrollment in BIOL 40C.

Not Repeatable.

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. [FHGE: Non-GE; Transferable: CSU]

BIOL 71 ADVANCED MOLECULAR BIOLOGY TECHNIQUES 2 Units

Prerequisites: Laboratory experience (high school and/or professional experience).

Advisory: Not open to students with credit in BTEC 71; 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). [FHGE: Non-GE; Transferable: 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. [Transferable: CSU]

BIOL 90B BIOLOGY EXTENDED EXPERIENTIAL INTERNSHIP 6 Units

Prerequisites: 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. [Transferable: 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, 3.5 hours laboratory.
Instructor permission required. Intended for students who desire or require additional help in attaining comprehension and competency in learning skills. Enrollment is limited to 6 times within the BIOL 190 group. [FHGE: Non-GE; Transferable: Not transferable]

BIOTECHNOLOGY

Biological & Health Sciences (650) 949-7249
www.foothill.edu/bio/programs/biotech/

BTEC 10 BIOTECHNOLOGY: GENERAL PRINCIPLES 5 Units
Advisory: Recent high school algebra or MATH 220; high school biology; eligibility for ENGL 1A or ESLL 26.
Not Repeatable.

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. [FHGE: Natural Sciences; Transferable: UC/CSU]

BTEC 51A CELL BIOLOGY FOR BIOTECHNOLOGY 3 Units

Prerequisites: MATH 105 or 108 or equivalent; ENGL 1A or ESLL 26 or equivalent; CHEM 30A or CHEM 1A or equivalent; BIOL 10 or recent high school biology.
Not Repeatable.

3 hours lecture.
Introduction to biological molecules, cellular structure and function, bioenergetics, genetics of prokaryotic and eukaryotic organisms, cell communication and signaling, cell cycle, and elements of molecular biology. Intended for biotechnology majors. [FHGE: Non-GE; Transferable: CSU]

BTEC 51AL CELL BIOLOGY LABORATORY FOR BIOTECHNOLOGY 5.5 Units

Prerequisites: MATH 105 or 108; ENGL 1A or ESLL 26 or equivalent; high school biology or BIOL 10; CHEM 25 or CHEM 1A.
Corequisites: Completion of, or concurrent enrollment in BTEC 51A.

Not Repeatable.
2 hours lecture, 10 hours laboratory.
Introduction to the biological laboratory techniques used in cell biology. Topics include volume measurements, solution preparation, use of pH meters, centrifugation, enzymology, spectrophotometry, chromatography, microscopy, and electrophoresis. Laboratory exercises will also focus on lab safety, scientific method, importance of laboratory notebooks, applied problem solving, and fundamentals of instrumentation. Intended for biotechnology majors. [FHGE: Non-GE; Transferable: CSU]

BTEC 52A MOLECULAR BIOLOGY FOR BIOTECHNOLOGY 3 Units

Prerequisite: BTEC 51A.

Not Repeatable.

3 hours lecture.

Introduction to molecular biology. Topics to include organization of prokaryotic and eukaryotic genomes, control of eukaryotic and prokaryotic gene expression, oncogenes, molecular events of the cell cycle, theory and applications of recombinant DNA technology. Intended for biotechnology majors. [FHGE: Non-GE; Transferable: CSU]

BTEC 52AL MOLECULAR BIOLOGY LABORATORY 5.5 Units FOR BIOTECHNOLOGY

Prerequisites: BTEC 51AL or instructor permission.

Corequisites: Completion of, or concurrent enrollment in BTEC 52A.

Not Repeatable.

2 hours lecture, 10 hours laboratory.

Introduction to 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. Intended for BTEC majors. [FHGE: Non-GE; Transferable: CSU]

BTEC 53A IMMUNOLOGY & VIROLOGY FOR BIOTECHNOLOGY 3 Units

Prerequisites: BTEC 52A.

Not Repeatable.

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. [FHGE: Non-GE; Transferable: CSU]

BTEC 53AL IMMUNOLOGY LABORATORY FOR BIOTECHNOLOGY 5.5 Units

Prerequisites: BTEC 52AL.

Corequisite: Completion of, or concurrent enrollment in BTEC 53A or equivalent.

Not Repeatable.

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. [FHGE: Non-GE; Transferable: CSU]

BTEC 54 BIOTECHNOLOGY EXTERNSHIP 4 Units

Prerequisites: BTEC 52A & 52AL.

Corequisite: BTEC 53A & 53AL.

Not Repeatable.

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. [FHGE: Non-GE; Transferable: Not transferable]

BTEC 60 PLANT BIOTECHNOLOGY & TISSUE CULTURE 3.5 Units

Prerequisites: High school biology.
Advisory: BIOL 10 or HORT 50A strongly recommended.
Not Repeatable.
2 hours lecture, 4 hours laboratory.

Introduction to current topics in plant tissue culture, micropropagation and plant biotechnology. Topics include: history of plant tissue culture, culture media and facilities, preparation of culture media, tissue culture techniques, including micropropagation, methods of plant genetic engineering and applications, and benefits and risks of plant genetic engineering. [FHGE: Non-GE; Transferable: CSU]

BTEC 61 MICROBIAL BIOTECHNOLOGY 4.5 Units

Prerequisites: BTEC 51A & 51AL.
Not Repeatable.
2 hours lecture, 2 hours lecture-laboratory, 4 hours laboratory.

Introduction to microbiology with an emphasis on a practical approach to the utilization of microorganisms in biotechnology. Topics to include the current status of microbial biotechnology and potential contributions within a variety of fields, genetic and biochemical diversity of microorganisms, their classification and metabolism, methods used to create engineered microorganisms, and the most widely exploited attributes of engineered microorganisms. Intended for Biotechnology majors. [FHGE: Non-GE; Transferable: CSU]

BTEC 64 PROTEIN ELECTROPHORETIC SYSTEMS: LABORATORY TECHNIQUE 1 Unit

Prerequisites: Laboratory experience (high school and/or professional experience).
Advisory: Not open to students with credit in BIOL 64; high school biology, chemistry, and algebra.
May be taken 2 times for credit.
2 hours lecture-laboratory.

Theory and techniques used in electrophoretic separations and transfers in a research or industrial setting including the molecular and physical basis of specific techniques, and their practical applications. Techniques include gel electrophoresis, capillary electrophoresis, isoelectric focusing, 2D gels and electrotransfers. Applications in research and industry for proteins, carbohydrates and small molecules. Instrumentation for electrophoresis, isoelectric focusing, and capillary electrophoresis and practical experience with reagents and instrumentation. Emphasis on practice following protocols. Intended for BTEC majors and those wishing to update their lab skills. [FHGE: Non-GE; Transferable: CSU]

BTEC 65 NUCLEIC ACIDS ELECTROPHORETIC SYSTEMS: LABORATORY TECHNIQUE 1 Unit

Prerequisites: Laboratory experience (high school and/or professional experience).
Advisory: Not open to students with credit in BIOL 65; high school biology, chemistry, and algebra.
May be taken 2 times for credit.
2 hours lecture-laboratory.

Performance of electrophoretic separations and transfers in a research or industrial setting. Including molecular and physical basis of specific techniques, and practical applications. Techniques include gel electrophoresis, capillary electrophoresis and electrotransfers. Applications of these techniques for nucleic acids, and small molecules, within research and industry will be presented. Emphasis on instrumentation for electrophoresis, capillary electrophoresis, and pulsed gel electrophoresis and practical experience with reagents and instrumentation will be emphasized. Intended for BTEC majors and those wishing to update their lab skills. [FHGE: Non-GE; Transferable: CSU]

BTEC 66 HPLC: LABORATORY TECHNIQUE 2 Units

Prerequisites: High school biology, chemistry and algebra; laboratory experience.
Advisory: Not open to students with credit in BIOL 66.
May be taken 2 times for credit.
4 hours lecture-laboratory.

Emphasis on performance of HPLC analysis in an academic or industrial setting. Topics include: theory and mechanisms of molecules and chemistry, the wide range of research, analytical and preparative uses of HPLC, instrumentation used for HPLC, practical experience with reagents

and instrumentation, following established protocols, calibrating and maintaining the instrumentation. Intended for BTEC majors and those wishing to update their lab skills. [FHGE: Non-GE; Transferable: CSU]

BTEC 67 IMMUNOLOGICAL ASSAYS: LABORATORY TECHNIQUE 1 Unit

Prerequisites: Laboratory experience (high school, college and/or professional); high school chemistry, biology, and algebra.
Advisory: Not open to students with credit in BIOL 67.
May be taken 2 times for credit.
2 hours lecture-laboratory.

Designed to give students hands on experience performing immunological assays. Includes theory, molecular basis, and research/diagnostic applications of techniques including: direct, indirect, sandwich, and quantitative ELISAs, and Western blotting. Practical experience with reagents (selection of conjugated antibodies, detection systems) and instrumentation (microtiter plate reader, polyacrylamide gel electrophoresis apparatus, transfer apparatus) will be emphasized. Intended for BTEC majors and students trying to update their laboratory skills. [FHGE: Non-GE; Transferable: CSU]

BTEC 68 POLYMERASE CHAIN REACTION: LABORATORY TECHNIQUE 1 Unit

Advisory: Laboratory experience (academic and/or industry); high school chemistry, biology, and 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. [FHGE: Non-GE; Transferable: CSU]

BTEC 69 MAMMALIAN CELL CULTURE TECHNIQUES 3 Units

Prerequisites: Laboratory experience (high school, college and/or professional).
Advisory: High school chemistry, biology, and 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 cells and cell lines. Theoretical considerations include purpose and selection of media components, setting up and maintaining a sterile cell culture environment, and controlling contamination. 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 on proper care and use of equipment used in a cell culture facility: laminar flow hoods, CO₂ incubators, water baths, and the inverted microscope. Intended for BTEC majors and those wishing to update their lab skills. [FHGE: Non-GE; Transferable: CSU]

BTEC 71 ADVANCED MOLECULAR BIOLOGY TECHNIQUES 2 Units

Prerequisites: Laboratory experience (high school and/or professional experience).
Advisory: Not open to students with credit in BIOL 71; 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). [FHGE: Non-GE; Transferable: CSU]

BTEC 73 HISTOTECHNOLOGY IN RESEARCH 1 Unit
Prerequisites: Laboratory experience (high school and/or professional experience).
Advisory: Not open to students with credit in BIOL 73; 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. [FHGE: Non-GE; Transferable: CSU]

BTEC 75 IMMUNOBIOTECHNOLOGY 2 Units
Advisory: high school chemistry, biology, and algebra.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: CSU]

BTEC 77 ENVIRONMENTAL BIOTECHNOLOGY 5 Units
Prerequisites: Laboratory experience (high school and/or professional experience); high school biology, chemistry, and algebra.
Advisory: BTEC 68 & 71.
Not Repeatable.
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 algal culturing. Emphasis will be placed on lab safety, following scientific method, applied problem solving, following standard protocols, and maintaining a professional quality laboratory notebook. [FHGE: Non-GE; Transferable: 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 recommended.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: UC/CSU]

BUSI 19 BUSINESS LAW II 4 Units
Advisory: BUSI 18.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: UC/CSU]

BUSI 22 PRINCIPLES OF BUSINESS 4 Units
Not Repeatable.
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. [FHGE: Social & Behavioral Sciences; Transferable: UC/CSU]

BUSI 34H HONORS INSTITUTE SEMINAR IN BUSINESS 1 Unit
Formerly: BUSI 34
Prerequisite: Honors Institute participant.
Advisory: Not open to students with credit in BUSI 34.
Not Repeatable.
1 hour lecture.
 A seminar in directed readings, discussions, and projects in business. Specific topics to be determined by the instructor. [FHGE: Non-GE; Transferable: CSU]

BUSI 35 DEPARTMENT HONORS PROJECTS IN BUSINESS 1 Unit
Formerly: BUSI 55
May be taken 6 times for credit.
1 hour lecture.
 Seminar in readings, research, critical techniques and practice. Specific topics vary. [FHGE: Non-GE; Transferable: CSU]

BUSI 53 SURVEY OF INTERNATIONAL BUSINESS 4 Units
Advisory: Not open to students with credit in BIS 53 or BUSI 20.
Not Repeatable.
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. [FHGE: Social & Behavioral Sciences; Transferable: CSU]

BUSI 57 PRINCIPLES OF ADVERTISING 4 Units
Advisory: Not open to students with credit in ADVT 57 or BUSI 81.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: CSU]

BUSI 58 SURVEY OF INTERNATIONAL MARKETING 4 Units
Advisory: Not open to students with credit in BIS 58 or BUSI 89.
Not Repeatable.
4 hours lecture.
 Contemporary developments of international marketing functions, concepts and business activities that determine global customer demand for products and services. [FHGE: Non-GE; Transferable: CSU]

BUSI 59 PRINCIPLES OF MARKETING 4 Units
Advisory: Not open to students with credit in BUSI 90.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: CSU]

BUSI 61	INVESTMENT FUNDAMENTALS	3 Units	BUSI 95E	SMALL BUSINESS EXPORT & IMPORT	3 Units
Not Repeatable.			Advisory: Not open to students with credit in BIS 95E.		
3 hours lecture.			Not Repeatable.		
Introduction to securities investment characteristics and rights. Portfolio building. Stock exchanges and over-the-counter markets. Investment banking and investment trusts. Financial statements, stock choice and selection, investment methods, technical market and stock analysis, financial planning, bond portfolios. [FHGE: Non-GE; Transferable: CSU]			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. [FHGE: Non-GE; Transferable: CSU]		
BUSI 62	PRINCIPLES OF SALESMANSHIP	3 Units	BUSI 97	MANAGEMENT SEMINAR	.5 Unit
Advisory: Not open to students with credit in BUSI 91.			May be taken 6 times for credit.		
Not Repeatable.			.5 hour lecture.		
3 hours lecture.			In-depth exposure to specific management theories and processes and the various leaders in the field. Enrollment is limited to 6 times within the BUSI 97 group. [FHGE: Non-GE; Transferable: CSU]		
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. [FHGE: Non-GE; Transferable: CSU]					
BUSI 64	SPECIAL PROJECTS IN BUSINESS	1 Unit	BUSI 99	SUPERVISED BUSINESS INTERNSHIPS	1 Unit
BUSI 64X		2 Units	BUSI 99X		2 Units
BUSI 64Y		3 Units	BUSI 99Y		3 Units
BUSI 64Z		4 Units	Formerly: BUSI 99A		
May be taken 6 times for credit.			May be taken 6 times for credit.		
1 hour lecture for each unit of credit.			3 hours laboratory for each unit of credit.		
Advanced readings, research, and/or project in business. Specific topics determined in consultation with instructor. Enrollment is limited to 6 times within the BUSI 64 group. [FHGE: Non-GE; Transferable: CSU]			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. Enrollment is limited to 6 times within the BUSI 99 group. [FHGE: Non-GE; Transferable: CSU]		
BUSI 70	BUSINESS & PROFESSIONAL ETHICS	4 Units	BUSI 231B	HOW TO START A HOME-BASED BUSINESS	.5 Unit
Advisory: Eligibility for ENGL 1A or ESLL 26 recommended.					
Not Repeatable.			Formerly: BUSI 131B		
4 hours lecture.			Non-degree applicable credit course.		
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. [FHGE: Non-GE; Transferable: CSU]			Advisory: Pass/No Pass; not open to students with credit in BUSI 131B.		
			Not Repeatable.		
			.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. [FHGE: Non-GE; Transferable: Not transferable]		
BUSI 90A	PRINCIPLES OF MANAGEMENT	4 Units	BUSI 233A	STARTING A SMALL BUSINESS	1 Unit
Advisory: Eligibility for ENGL 1A or ESLL 26 recommended.			Formerly: BUSI 133A		
Not Repeatable.			Non-degree applicable credit course.		
4 hours lecture.			Advisory: Pass/No Pass; not open to students with credit in BUSI 133A.		
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. [FHGE: Non-GE; Transferable: CSU]			Not Repeatable.		
			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. [FHGE: Non-GE; Transferable: Not transferable]		
BUSI 91L	INTRODUCTION TO BUSINESS INFORMATION PROCESSING	4 Units	BUSI 233E	SMALL BUSINESS MARKETING, RESEARCH & PLANNING	1 Unit
Formerly: BUSI 10			Formerly: BUSI 133E		
Advisory: Not open to students with credit in BUSI 10.			Non-degree applicable credit course.		
Not Repeatable.			Advisory: Pass/No Pass; not open to students with credit in BUSI 133E.		
2 hours lecture, 6 hours laboratory.			Not Repeatable.		
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. [FHGE: Lifelong Understanding; Transferable: CSU]			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. [FHGE: Non-GE; Transferable: Not transferable]		
BUSI 95	ENTREPRENEURSHIP - SMALL BUSINESS MANAGEMENT	4 Units			
Not Repeatable.					
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. [FHGE: Non-GE; Transferable: CSU]					

BUSINESS OFFICE TECHNOLOGY

Business & Social Sciences

(650) 949-7233

www.foothill.edu/bss/

B T 51A PROFESSIONAL KEYBOARDING I 1 Unit (BEGINNING)

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.

Not Repeatable.

2 hours lecture-laboratory.

Develop and master correct keyboarding skills and techniques on the microcomputer using the touch system. [FHGE: Non-GE; Transferable: CSU]

B T 51B PROFESSIONAL KEYBOARDING II 1 Unit (BASIC FORMATTING)

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. Not Repeatable.

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. [FHGE: Non-GE; Transferable: CSU]

B T 51C PROOFREADING I 1 Unit

Not Repeatable.

2 hours lecture-laboratory.

Development of proofreading and editing skills in preparation for office occupations. Hands-on experience with proofreading software. [FHGE: Non-GE; Transferable: 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.

Not Repeatable.

4 hours lecture, 4 hours laboratory.

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. [FHGE: Non-GE; Transferable: CSU]

CAREER LIFE PLANNING

Counseling & Student Services

(650) 949-7296

CRLP 55 LIFELONG LEARNING STRATEGIES 3 Units

Not Repeatable.

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. [FHGE: Lifelong Understanding; Transferable: CSU]

CRLP 70 SELF-ASSESSMENT 3 Units

Advisory: Not open to students with credit in CRLP 76 or 76A.

Not Repeatable.

3 hours lecture.

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. [FHGE: Lifelong Understanding; Transferable: 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. [FHGE: Non-GE; Transferable: 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. [FHGE: Non-GE; Transferable: 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. [FHGE: Non-GE; Transferable: CSU]

CERTIFIED ELECTRICIAN

Business & Social Sciences

(650) 949-7142

www.foothill.edu/bss/

C E 101A ELECTRICIAN TRAINING 3 Units CERTIFICATION REVIEW: NEC

Prerequisites: C E 129 or equivalent; 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. [Transferable: Not transferable]

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. [Transferable: Not transferable]

C E 101C ELECTRICIAN TRAINING 1.5 Units
**CERTIFICATION REVIEW: AC/
DC GENERATORS**

Prerequisites: Completion of C E 129 or equivalent, and 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. [Transferable: Not transferable]

C E 101D ELECTRICIAN TRAINING 1.5 Units
**CERTIFICATION REVIEW:
PIPE BENDING**

Prerequisites: Completion of C E 129 or equivalent, and 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. [Transferable: Not transferable]

C E 101E ELECTRICIAN TRAINING 1.5 Units
**CERTIFICATION REVIEW:
GROUNDING & BONDING**

Prerequisites: Completion of C E 129 or equivalent, and 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. [Transferable: Not transferable]

C E 101F ELECTRICIAN TRAINING 2.5 Units
**CERTIFICATION REVIEW:
BLUEPRINT READING**

Prerequisites: 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. [Transferable: Not transferable]

C E 101G ELECTRICIAN TRAINING 1 Unit
**CERTIFICATION REVIEW:
PROFESSIONAL RELATIONS**

Prerequisites: Completion of C E 129 or equivalent, and 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.

A content review course designed to prepare for Professional Job Relations elements of the State Electrician Certification Exam. Advice and practice on how to prepare for and take examinations. [Transferable: Not transferable]

C E 101H ELECTRICIAN TRAINING 1 Unit
**CERTIFICATION REVIEW:
SPECIALTY SYSTEMS**

Prerequisites: Completion of C E 129 or equivalent, and 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.

A content review course designed to prepare for the specialty systems portion of the State Electrician Certification Exam. Study of the National Electrical Code (NEC), its purpose, and application of information to the job. Theory, function, and design of 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 procedures. 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. [Transferable: Not transferable]

C E 101I ELECTRICIAN TRAINING 1.5 Units
**CERTIFICATION REVIEW:
NEC UPDATE**

Prerequisites: Completion of C E 129 or equivalent, and 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.**
1.5 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. This course will specifically address the most recent updates and changes to the NEC. Advice and practice on how to prepare for and take examinations. [Transferable: Not transferable]

CHEMISTRY

Physical Sciences, Mathematics & Engineering (650) 949-7259
www.foothill.edu/psme/

CHEM 1A GENERAL CHEMISTRY 5 Units

Prerequisites: Satisfactory score on the chemistry placement test or CHEM 25; satisfactory score on the mathematics placement test or MATH 105 or 108.

Advisory: Concurrent enrollment in ESLL 25 or ENGL 100.
Not Repeatable.

3 hours lecture, 2 hours lecture-laboratory, 4 hours laboratory.

The course covers fundamental chemical principles with an emphasis on physical and chemical properties, stoichiometry, chemical reaction types, kinetic molecular theory, thermochemistry, modern atomic theory and atomic structure, chemical bonding and bonding theory, and molecular shapes. The laboratory component parallels lecture topics and also includes chemical nomenclature, basic chemical equations, stoichiometry, unknown analysis, and fundamentals of oxidation and reduction. [FHGE: Natural Sciences; Transferable: UC/CSU]

CHEM 1B GENERAL CHEMISTRY 5 Units

Prerequisite: CHEM 1A.

Not Repeatable.

3 hours lecture, 2 hours lecture-laboratory, 4 hours laboratory.

Kinetic molecular theory and gas laws, intermolecular forces, chemical kinetics, equilibria, behavior of acids and bases, acid/base equilibrium, and classical thermodynamics. Laboratory parallels lecture topics and includes computer graphing techniques, chemical kinetics, equilibrium measurements, heat transfer experiments, thermodynamics of an equilibrium system, vapor pressure of liquids. [FHGE: Non-GE; Transferable: UC/CSU]

CHEM 1C	GENERAL CHEMISTRY & QUALITATIVE ANALYSIS	5 Units	CHEM 30A	SURVEY OF INORGANIC & ORGANIC CHEMISTRY	5 Units
<p>Prerequisite: CHEM 1B. Not Repeatable. 3 hours lecture, 2 hours lecture-laboratory, 4 hours laboratory. Aqueous ionic equilibria of buffers, solubility product constants and formation constants; properties of solutions including factors affecting solubility, energy changes in the solution process and colligative properties; electrochemistry including the thermodynamics of voltaic cells; introduction to coordination chemistry and bonding theory; nuclear chemistry with emphasis on applications; and, time permitting, an introduction to modern materials. Laboratory parallels lecture topics with an introduction to qualitative inorganic analysis. [FHGE: Non-GE; Transferable: UC/CSU]</p>			<p>Prerequisite: Satisfactory score on the mathematics placement test or MATH 220. Not Repeatable. 4 hours lecture, 1 hour lecture-laboratory, 2 hours laboratory. This is an introductory course covering basic principles of chemistry more descriptive than quantitative in emphasis. Topics include atomic structure, the periodic table, the three states of matter, energy, chemical bonding in ionic and molecular compounds, nomenclature, measurement and the metric system, chemical reactions and equations, solutions, acids, bases, salts and electrolyte systems. This chemistry course is primarily for students entering the allied health field including: nursing, veterinary technology, dental assistant, dental hygiene, biotechnology, primary care associate, radiation therapy technology, radiological technology, respiratory therapy, and pharmaceutical technology. [FHGE: Natural Sciences; Transferable: UC/CSU]</p>		
CHEM 12A	ORGANIC CHEMISTRY	6 Units	CHEM 30B	SURVEY OF ORGANIC & BIOCHEMISTRY	5 Units
<p>Prerequisite: CHEM 1C. Not Repeatable. 4 hours lecture, 2 hours lecture-laboratory, 4 hours laboratory. A sophomore level course describing the chemistry of organic (carbon containing) compounds. Emphasis on structure-reactivity relationships mechanisms of functional group transformations, and preparation, and purification of organic compounds. For biological science, chemistry, chemical engineering, pre-professional students in dentistry, medicine, pharmacy, veterinary medicine and other interested students who have mastered the prerequisites. [FHGE: Non-GE; Transferable: UC/CSU]</p>			<p>Prerequisite: CHEM 30A. Not Repeatable. 4 hours lecture, 1 hour lecture-laboratory, 2 hours laboratory. 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, and biotechnology. [FHGE: Non-GE; Transferable: UC/CSU]</p>		
CHEM 12B	ORGANIC CHEMISTRY	6 Units	CHEM 36	SPECIAL PROJECTS IN CHEMISTRY	1 Unit
<p>Prerequisite: CHEM 12A. Not Repeatable. 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. [FHGE: Non-GE; Transferable: UC/CSU]</p>			CHEM 36X		2 Units
CHEM 12C	ORGANIC CHEMISTRY	6 Units	CHEM 36Y		3 Units
<p>Prerequisite: CHEM 12B. Not Repeatable. 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. [FHGE: Non-GE; Transferable: UC/CSU]</p>			<p>Prerequisite: Four quarters of college-level chemistry. May be taken 6 times for credit. 3 hours laboratory for each unit of credit. 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. Enrollment is limited to 6 times within the CHEM 36 group. [FHGE: Non-GE; Transferable: CSU]</p>		
CHEM 25	FUNDAMENTALS OF CHEMISTRY	5 Units	CHEM 70	STUDY SKILLS & PROBLEM SOLVING STRATEGIES FOR CHEM 1A	2 Units
<p>Prerequisite: Satisfactory score on the mathematics placement test or MATH 105 or 108. Advisory: Concurrent enrollment in ESLL 25 or ENGL 100. Not Repeatable. 4 hours lecture, 1 hour lecture-laboratory, 2 hours laboratory. Intended for students who wish to meet general education requirements in physical science or need background preparation for CHEM 1A. The course includes basic chemical laboratory techniques and methods, a survey of important chemical principles with emphasis on problem solving, and a description of the elements and their compounds. [FHGE: Natural Sciences; Transferable: UC/CSU]</p>			<p>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 textbooks, 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. [FHGE: Non-GE; Transferable: CSU]</p>		
			CHEM 100	CHEMISTRY STUDENT ASSISTANCE	.5 Unit
			CHEM 100X		1 Unit
			CHEM 100Y		2 Units
			<p>Advisory: Pass/No Pass Corequisites: Concurrent enrollment in any Chemistry course. May be taken 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 which is beyond the time allocated to the course. Enrollment is limited to 6 times within the CHEM 100 group. [FHGE: Non-GE; Transferable: Not transferable]</p>		

CHILD DEVELOPMENT

Business & Social Sciences

(650) 949-7322
www.foothill.edu/bss/

CHLD 1 CHILD DEVELOPMENT: PRENATAL TO EARLY CHILDHOOD 4 Units

Advisory: Not open to students with credit in CHLD 55.
Not Repeatable.
4 hours lecture.

Development of the child from prenatal life through early childhood. In-depth study of the physical, cognitive, language and social-emotional development of children using observation to connect theory to practice. [FHGE: Social & Behavioral Sciences; Transferable: CSU]

CHLD 2 CHILD DEVELOPMENT: MIDDLE CHILDHOOD TO ADOLESCENCE 4 Units

Not Repeatable.
4 hours lecture.

Development of the child from middle childhood through adolescence. In-depth study of the physical, cognitive, language and social-emotional development of children using observation to connect theory to practice. [Transferable: CSU]

CHLD 11 AFFIRMING DIVERSITY IN EDUCATION 4 Units

Advisory: Eligibility for ENGL 1A or ESLL 26.
Not Repeatable.
4 hours lecture.

Analysis of gender, race, culture, abilities/disabilities and social class from the child development perspective with emphasis on theory and research. Provides a conceptual framework for children's cognitive, social and emotional responses to diversity. Serves as a basis to develop a rationale for a culturally relevant/anti-bias education. [FHGE: United States Cultures & Communities; Transferable: CSU]

CHLD 50 SCHOOL-AGE CHILD (5-12): BEHAVIOR & DEVELOPMENT 3 Units

Not Repeatable.
3 hours lecture.

Introduction to human growth and development from ages five to twelve, covering physical, cognitive, social and emotional development of the child. Analysis of current issues facing school-age children in contemporary society. Designed for those who work or desire to work with school-age children in after school programs, elementary schools (teachers and aides) and home setting (parents and caregivers). [FHGE: Non-GE; Transferable: CSU]

CHLD 50A INFANT/TODDLER DEVELOPMENT 3 Units

Not Repeatable.
3 hours lecture.

Human growth and development from birth to 3 years within the context of the young child's family, culture and community. Examination of developmental theory within the three distinct ages of infancy. Integration of physical, cognitive, language, social and emotional domains emphasizing the importance of relationships. [FHGE: Non-GE; Transferable: CSU]

CHLD 53NC SUPPORTING CHILDREN WITH SPECIAL NEEDS IN CHILDREN'S PROGRAMS 3 Units

Not Repeatable.
3 hours lecture.

Strategies to work effectively with all children in early childhood programs. Focus on infants, toddlers and preschoolers with disabilities, developmental delays or special health care needs. Best practices from early childhood education and early childhood special education/early intervention will be embedded throughout. Making adaptations, modifications and accommodations in the environment, with materials and to teaching strategies, for individual children in group settings. Working in collaboration with additional support professionals, community resources, IFSP and IEP teams and family members. [Transferable: CSU]

CHLD 53NP DEVELOPMENT OF CHILDREN WITH SPECIAL NEEDS 3 Units

Not Repeatable.
3 hour lecture.

Introduction to a variety of diagnosed disabilities and other special needs conditions that cause children, birth through age 8, to show atypical development. Laws and service provisions, social and educational implications, culture and family dynamics in the context of the larger community will be discussed. [FHGE: Non-GE; Transferable: CSU]

CHLD 55 CHILD GROWTH & DEVELOPMENT 5 Units

Not Repeatable.
4 hours lecture, 3 hours laboratory.

Development of the child from prenatal life through adolescence. In-depth study of the physical, cognitive, language and social-emotional development of children from infancy through adolescence. Observation of children required. [FHGE: Social & Behavioral Sciences; Transferable: UC/CSU]

CHLD 56 OBSERVATION & ASSESSMENT 4 Units

Advisory: CHLD 1 and 56N.
Not Repeatable.
4 hours lecture

Focus on training in observation and assessment techniques in natural settings using a range of tools. Conducting formal observations and assessment that will guide development of curriculum. Child portfolio development and preparation for teacher-parent conferences. Recording strategies, rating systems, and multiple assessment methods are explored. [FHGE: Non-GE; Transferable: CSU]

CHLD 56N PRINCIPLES & PRACTICES OF TEACHING YOUNG CHILDREN 4 Units

Not Repeatable.
4 hours lecture.

An examination of the underlying theoretical principles of developmentally appropriate practices applied to early childhood programs and environments. Emphasizing the key role of relationships, constructive adult-child interactions, and teaching strategies in supporting physical, social, creative and intellectual development of the child. [FHGE: Non-GE; Transferable: CSU]

CHLD 59 WORKING WITH SCHOOL-AGE CHILDREN: PRINCIPLES & PRACTICES 3 Units

Not Repeatable.
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. [FHGE: Non-GE; Transferable: CSU]

CHLD 63N ARTISTIC & CREATIVE DEVELOPMENT 3 Units

Not Repeatable.
3 hours lecture.

Artistic awareness and creativity in young children. Uses a variety of media to promote children's sensitivity to, and use of, various tactile arts, visual arts and performing arts. Role of the family and teacher in encouraging children's explorations. Emphasis on developmentally appropriate curriculum that encourages children's imagination, creative thinking and self-expression. [FHGE: Non-GE; Transferable: CSU]

CHLD 68 SPECIAL TOPICS/PROJECTS IN 1 Unit

CHLD 68X CHILD DEVELOPMENT 2 Units

CHLD 68Y 3 Units

CHLD 68Z 4 Units

May be taken 6 times for credit.

1 hour lecture for each unit of credit.

Special topics or projects in any 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. Enrollment is limited to 6 times within the CHLD 68 group. [FHGE: Non-GE; Transferable: CSU]

<p>CHLD 71 PLANNING CREATIVE ART ACTIVITIES FOR CHILDREN 1 Unit</p> <p>Not Repeatable. 1 hour lecture. Introduction to a variety of creative art activities for the young child. Exploration of a variety of tactile arts including paint, chalk, play dough, collage and crayons. Emphasis on developmentally appropriate curriculum development that encourages children's imagination, creative thinking and self-expression. [FHGE: Non-GE; Transferable: CSU]</p>	<p>CHLD 86A MENTORING THE EARLY CARE & EDUCATION PROFESSIONAL 4 Units</p> <p>Advisory: CHLD 1, 88; a minimum of one other three-unit course in Child Development. Not Repeatable. 4 hours lecture. Prepares the student for the role of mentoring student teachers, assistant teachers, parents, and volunteers in early care and education settings. Emphasis on the role of teachers supervising other adults while simultaneously addressing the classroom needs of the early care and education program. Development of the mentor in supporting the professional growth of the teaching adult. Fulfills the Child Development permit adult supervision course requirement. [FHGE: Non-GE; Transferable: CSU]</p>
<p>CHLD 72 LANGUAGE DEVELOPMENT 3 Units</p> <p>Not Repeatable. 3 hours lecture. Development of language and speech, language acquisition theories, and emergent literacy in monolingual and young English language learners. Discussion of experiences and activities which promote oral and written language abilities. Focus on the developmental stages of receptive and expressive language, conversations, print awareness, phonemic awareness, reading and writing, bilingual development, and speech and language delays. [FHGE: Non-GE; Transferable: CSU]</p>	<p>CHLD 86B PRACTICUM STUDENT TEACHING IN AN EARLY CHILDHOOD PROGRAM 5 Units</p> <p>Advisory: CHLD 1, 88 and a minimum of three units in Child Development courses. Not Repeatable. 2 hours lecture, 10 hours laboratory. Focus on students preparing to 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. [FHGE: Non-GE; Transferable: CSU]</p>
<p>CHLD 73 MUSIC & MOVEMENT IN THE EARLY YEARS 3 Units</p> <p>Not Repeatable. 3 hours lecture. 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. [FHGE: Non-GE; Transferable: CSU]</p>	<p>CHLD 88 CHILD, FAMILY & COMMUNITY 4 Units</p> <p>Not Repeatable. 4 hours lecture. An examination of the developing child in a societal context focusing on interrelationship of family, school, and community and emphasizes historical and sociocultural factors. [FHGE: Non-GE; Transferable: CSU]</p>
<p>CHLD 74 SCIENCE & NATURE 1 Unit</p> <p>Not Repeatable. 1 hour lecture. Developing science experiences for children. Activities involving plants, animals, and the physical properties of the environment. Emphasis on making science part of the everyday experience in early childhood program curriculum. [FHGE: Non-GE; Transferable: CSU]</p>	<p>CHLD 88B POSITIVE BEHAVIOR MANAGEMENT 2 Units</p> <p>Not Repeatable. 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 positive guidance strategies to meet the needs of each individual child. [FHGE: Non-GE; Transferable: CSU]</p>
<p>CHLD 79 CARING FOR INFANTS & TODDLERS IN GROUPS 3 Units</p> <p>Not Repeatable. 3 hours lecture. Overview of infant and toddler development as it relates to caregiving practices in group settings. Observation and analysis of infant/toddler classrooms. Influence of responsive and culturally sensitive relationships with children and their parents on children's development. Effects of social and physical environments on program practices, child learning and behavior. [FHGE: Non-GE; Transferable: CSU]</p>	<p>CHLD 89 CURRICULUM FOR EARLY CARE & EDUCATION PROGRAMS 3 Units</p> <p>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. [FHGE: Non-GE; Transferable: CSU]</p>
<p>CHLD 82 PLANNING CREATIVE DRAMATICS 1 Unit</p> <p>Not Repeatable. 1 hour lecture. 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. Role of the parent and teacher in facilitating children's explorations. [FHGE: Non-GE; Transferable: CSU]</p>	<p>CHLD 90B ADMINISTRATION & SUPERVISION OF CHILDREN'S PROGRAMS PART I 4 Units</p> <p>Advisory: Completion of 9 units of child development courses. Not Repeatable. 4 hours lecture. A study of the development of the components of a quality early care and education program including roles and responsibilities of the director, types of programs, philosophy development, organizational structure, licensing regulations, advisory boards, facility design and set up, budgets and funding. [FHGE: Non-GE; Transferable: CSU]</p>
<p>CHLD 85 LITERACY & LITERATURE IN EARLY CHILDHOOD EDUCATION 3 Units</p> <p>Not Repeatable. 3 hours lecture. Introduction to literature for children from birth through age 8. Emphasis on selection, evaluation and classroom use of literature to support literacy in children. The development of experiences and activities for young children which promote oral and written language abilities will also be discussed. [FHGE: Non-GE; Transferable: CSU]</p>	

CHLD 90C ADMINISTRATION & SUPERVISION OF CHILDREN'S PROGRAMS PART 2 4 Units

Advisory: Completion of 9 units of child development courses.
Not Repeatable.
4 hours lecture.

In addition to the study of the development of the components of a quality early care and education program including the administrator's responsibilities in equipping the program, staffing, marketing the program, selecting, grouping and enrolling the children. Also included are the administrative responsibilities of food management, health and safety programs, evaluating center components, staff professional development, working with families, volunteers and the community. [FHGE: Non-GE; Transferable: CSU]

CHLD 91 ADMINISTRATION & SUPERVISION: ADULT SUPERVISION & LEADERSHIP 4 Units

Advisory: Completion of 9 units of child development courses.
Not Repeatable.
4 hours lecture.

Methods and principles of supervising adults in early care and education programs. Study of the supervisory process, professional conduct, communication, assessment, organizational climate, leadership styles, ethics and career development. Fulfills requirement of CA Child Development Permit Matrix and Mentor Teacher course. [FHGE: Non-GE; Transferable: CSU]

CHLD 95 HEALTH, SAFETY & NUTRITION IN CHILDREN'S PROGRAMS 3 Units

Not Repeatable.
3 hours lecture.

For child care providers engaged in-home or classroom care of young children. Topics 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. [FHGE: Non-GE; Transferable: CSU]

CHINESE - MANDARIN

Language Arts

(650) 949-7043
www.foothill.edu/la/

CHIN 1 ELEMENTARY CHINESE I 5 Units

Not Repeatable.
5 hours lecture.

Introduction to basic speaking, listening, reading and writing of Mandarin. The cultures of the Mandarin-speaking countries and regions will be introduced. Emphasis will be on the four tone system of Chinese pronunciation and simple characters for daily communication. Key elements include: introduction of grammatical and syntactical structures, oral and written practice in the minimum competencies, and regular use of Language laboratory to reinforce pronunciation, syntax and conversation. [FHGE: Humanities; Transferable: UC/CSU]

CHIN 2 ELEMENTARY CHINESE II 5 Units

Prerequisite: CHIN 1 or 1 year of high school Chinese.
Not Repeatable.
5 hours lecture.

Further development of the material presented in CHIN 1. Continued practice of the four basic skills: listening, speaking, reading and writing. Intensive oral practice of the four tone system of Chinese pronunciation in everyday language situations as well as basic grammatical constructions. Language laboratory practice. [FHGE: Humanities; Transferable: UC/CSU]

CHIN 3 ELEMENTARY CHINESE III 5 Units

Prerequisite: CHIN 2 or two years of high school Chinese.
Not Repeatable.
5 hours lecture.

Further development of the material presented in CHIN 2. Continued practice of the four basic skills: listening, speaking, reading and writing. Intensive oral practice of the four tone system of Chinese pronunciation in

everyday language situations as well as basic grammatical constructions. Language laboratory practice. [FHGE: Humanities; Transferable: UC/CSU]

CHIN 4 INTERMEDIATE CHINESE I 5 Units

Prerequisite: CHIN 3 or 3 years of high school Chinese.
Not Repeatable.
5 hours lecture.

Continuation of CHIN 3. Review of grammar and grammatical structures presented at the elementary level. Intensive oral and written drills using the four tone system of Chinese pronunciation. Composition of short essays and stories. Presentation and discussion of Chinese culture. Conversation and language laboratory practice. [FHGE: Humanities; Transferable: UC/CSU]

CHIN 5 INTERMEDIATE CHINESE II 5 Units

Prerequisite: CHIN 4 or four years of high school Chinese.
Not Repeatable.
5 hours lecture.

Continuation of CHIN 4. Further development of grammatical structures. Continued intensive drill of the four tone system. Continuation of communicative competency and vocabulary building. Introduction to reading Chinese literature. Limited amount of composition of short essays and stories. Presentation and discussion of Chinese culture. Language laboratory practice. [FHGE: Humanities; Transferable: UC/CSU]

CHIN 6 INTERMEDIATE CHINESE III 5 Units

Prerequisite: CHIN 5.
Not Repeatable.
5 hours lecture.

Continuation of CHIN 5. Further development of speaking, listening, reading, and writing skills at the intermediate-to-high proficiency levels. Review of grammatical structures learned in the previous levels. Emphasis on communication competency and vocabulary. Study of new idiomatic Mandarin expressions. Development of students' abilities to express their attitudes towards actions and conditions. Discussion and analysis of several short essays and stories. Introduction of classical Chinese literature. Individual and group oral presentations. Language laboratory practice. [FHGE: Humanities; Transferable: UC/CSU]

CHIN 13A INTERMEDIATE CONVERSATION I 4 Units

Prerequisites: CHIN 3 or equivalent.
Not Repeatable.
4 hours lecture.

Review and development of conversational skills in the targeted functions studied in first year Chinese with attention to fluency, vocabulary and pronunciation. Continued practice of the four tone system. Special emphasis on correct perception, fluency of speaking, and familiarity with oral idioms and vocabulary as they differ from more formal written and literary uses. [FHGE: Humanities; Transferable: UC/CSU]

CHIN 13B INTERMEDIATE CONVERSATION II 4 Units

Prerequisite: CHIN 13A or equivalent.
Not Repeatable.
4 hours lecture.

Continuation of CHIN 13A. Further development of conversation, reading, and writing skills. Emphasis on communicative competency and vocabulary building. Limited amount of composition of short essays and stories. Study of idiomatic expressions in Chinese. Classical Chinese literature. Language laboratory practice. [FHGE: Humanities; Transferable: UC/CSU]

CHIN 13C INTERMEDIATE CONVERSATION III 4 Units

Prerequisite: CHIN 13B; 3 years of high school Chinese or equivalent.
Not Repeatable.
4 hours lecture.

Continuation of CHIN 13B. Intensive oral practice in everyday language situations. Further development of Chinese grammatical constructions and sentence structures. Practice of short conversations in real life situations. Presentation and discussion of Chinese culture. Language laboratory practice. [FHGE: Non-GE; Transferable: UC/CSU]

CHIN 14A ADVANCED CONVERSATION I 4 Units
Prerequisite: CHIN 6 or equivalent.
Not Repeatable.
4 hours lecture.
Continuation of Chinese 6. Further development of conversation skills in Chinese language with emphasis on the active use of practical Chinese in everyday situation. Review grammar, vocabulary and pronunciation, with frequent small group conversations. Further introduction of Chinese culture with emphasis on cultural diversity within Chinese speaking area. [FHGE: Humanities; Transferable: UC/CSU]

CHIN 14B ADVANCED CONVERSATION II 4 Units
Prerequisite: CHIN 14A or equivalent.
Not Repeatable.
4 hours lecture.
Continuation of CHIN 14A. Development of complex communication skills in an environment of increasingly challenging language situations. Emphasis on idioms and vocabulary that are different from the usage of formal written and literary language. Increased fluency in the oral language. [FHGE: Humanities; Transferable: UC/CSU]

CHIN 14C ADVANCED CONVERSATION III 4 Units
Prerequisite: CHIN 14B; 3 years of high school Chinese or equivalent.
May be taken 3 times for credit.
4 hours lecture
Continuation of CHIN 14B. Further development of Chinese conversation skills at the intermediate-to-high proficiency levels. Review and practice all the structures learned in the previous levels. Emphasis on communication competency and vocabulary. Additional idiomatic Mandarin expressions. Analysis and discussion of short essays and stories. Individual and group oral presentations. Language laboratory practice. [FHGE: Non-GE; Transferable: CSU]

CHIN 25A ADVANCED COMPOSITION & READING I 4 Units
Prerequisite: CHIN 6.
Not Repeatable.
4 hours lecture.
Introduction to authentic Chinese written materials intended for native Chinese 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. 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. [FHGE: Humanities; Transferable: UC/CSU]

CHIN 25B ADVANCED COMPOSITION & READING II 4 Units
Prerequisite: CHIN 25A.
Not Repeatable.
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. [FHGE: Humanities; Transferable: 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. [FHGE: Non-GE; Transferable: Not transferable]

COMMUNICATION STUDIES

Fine Arts & Communication

(650) 949-7262
www.foothill.edu/fa/

COMM 1A PUBLIC SPEAKING 5 Units
Formerly: SPCH 1A
Advisory: Eligibility for ENGL 1A or ESLL 26, or equivalent; not open to students with credit in COMM 1AH or SPCH 1A.
Not Repeatable.
5 hours lecture.
Introduction to the analysis, theory and history of rhetoric and public address; application of principles of public address to the preparation and delivery of public speeches. [FHGE: Communication & Analytical Thinking; Transferable: UC/CSU]

COMM 1AH HONORS PUBLIC SPEAKING 5 Units
Prerequisite: Honors Institute participant.
Advisory: Eligibility for ENGL 1A or ESLL 26, or equivalent; not open to students with credit in COMM 1A or SPCH 1A.
Not Repeatable.
5 hours lecture.
Introduction to the analysis of the history of rhetoric and public address; application of principles of public address to the preparation and delivery of public speeches. The honors section provides accelerated students with additional academic challenge in the areas of research, discussion, and intellectual exploration of ideas. Expanded opportunities include, but are not limited to, in-depth examination of speech text within historical context, self-reflection speeches and papers, creative individual and group projects, historical oral interpretation, and enrichment activities. [FHGE: Non-GE; Transferable: UC/CSU]

COMM 1B ARGUMENTATION & PERSUASION 5 Units
Formerly: SPCH 1B
Advisory: Eligibility for ENGL 1A or ESLL 26, or equivalent; not open to students with credit in COMM 1BH or SPCH 1B.
Not Repeatable.
5 hours lecture.
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. [FHGE: Communication & Analytical Thinking; Transferable: UC/CSU]

COMM 1BH HONORS ARGUMENTATION & PERSUASION 5 Units
Prerequisite: Honors Institute participant.
Advisory: Eligibility for ENGL 1A or ESLL 26, or equivalent; not open to students with credit in COMM 1B or SPCH 1B.
Not Repeatable.
5 hours lecture.
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. [FHGE: Non-GE; Transferable: UC/CSU]

COMM 2 INTERPERSONAL COMMUNICATION 5 Units
Formerly: SPCH 2
Advisory: Eligibility for ENGL 1A or ESLL 26, or equivalent; not open to students with credit in SPCH 2.
Not Repeatable.
5 hours lecture.
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. [FHGE: Communication & Analytical Thinking, Lifelong Understanding; Transferable: UC/CSU]

<p>COMM 3 FUNDAMENTALS OF ORAL COMMUNICATION 5 Units</p> <p><i>Formerly: SPCH 3</i> Advisory: Eligibility for ENGL 1A or ESLL 26, or equivalent; not open to students with credit in SPCH 3. Not Repeatable. 5 hours lecture. 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. [FHGE: Communication & Analytical Thinking; Transferable: UC/CSU]</p>	<p>COMM 35 DEPARTMENT HONORS PROJECTS IN COMMUNICATION STUDIES 1 Unit</p> <p>COMM 35X COMMUNICATION STUDIES 2 Units</p> <p>COMM 35Y COMMUNICATION STUDIES 3 Units</p> <p>COMM 35Z COMMUNICATION STUDIES 4 Units</p> <p><i>Formerly: SPCH 35</i> Advisory: COMM 1A or 4. May be taken 6 times for credit. 1 hour lecture for each unit of credit. 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. Enrollment is limited to 6 times within the COMM 35 group. [FHGE: Non-GE; Transferable: CSU]</p>
<p>COMM 4 GROUP DISCUSSION 5 Units</p> <p><i>Formerly: SPCH 4</i> Advisory: Eligibility for ENGL 1A or ESLL 26, or equivalent; not open to students with credit in SPCH 4. Not Repeatable. 5 hours lecture. Analysis of the principles of group interaction and decision making. Participation in discussion groups designed to share information, solve problems and reach consensus. [FHGE: Communication & Analytical Thinking; Transferable: UC/CSU]</p>	<p>COMM 36 SPECIAL PROJECTS IN COMMUNICATION STUDIES 1 Unit</p> <p>COMM 36X COMMUNICATION STUDIES 2 Units</p> <p>COMM 36Y COMMUNICATION STUDIES 3 Units</p> <p>COMM 36Z COMMUNICATION STUDIES 4 Units</p> <p><i>Formerly: SPCH 36</i> Advisory: COMM 1A or 4. May be taken 6 times for credit. 1 hour lecture for each unit of credit. 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. Enrollment is limited to 6 times within the COMM 36 group. [FHGE: Non-GE; Transferable: CSU]</p>
<p>COMM 10 GENDER, COMMUNICATION & CULTURE 5 Units</p> <p><i>Formerly: SPCH 10</i> Advisory: Eligibility for ENGL 1A or ESLL 26, or equivalent; not open to students with credit in SPCH 10. Not Repeatable. 5 hours lecture. 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). [FHGE: United States Cultures & Communities, Lifelong Understanding; Transferable: UC/CSU]</p>	<p>COMM 54 INTERCOLLEGIATE SPEECH/DEBATE 2 Units</p> <p><i>Formerly: SPCH 54</i> Advisory: Eligibility for ENGL 1A or ESLL 26 or equivalent. May be taken 6 times for credit. 1 hour lecture, 2 hours laboratory. Training in principles of debate and forensic speech; preparation for participation in competitive debate, extemporaneous speaking and oratory. Students will attend or participate in intercollegiate forensic tournament or on-campus activity. [FHGE: Non-GE; Transferable: CSU]</p>
<p>COMM 12 INTERCULTURAL COMMUNICATION 5 Units</p> <p><i>Formerly: SPCH 12</i> Advisory: Eligibility for ENGL 1A or ESLL 26, or equivalent; not open to students with credit in SPCH 12. Not Repeatable. 5 hours lecture. 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. [FHGE: United States Cultures & Communities, Communication & Analytical Thinking, Lifelong Understanding; Transferable: UC/CSU]</p>	<p>COMM 55 CAREER & LEADERSHIP COMMUNICATION IN THE GLOBAL WORKPLACE 5 Units</p> <p><i>Formerly: SPCH 55</i> 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. [FHGE: Communication & Analytical Thinking, Lifelong Understanding; Transferable: CSU]</p>
<p>COMM 34H HONORS INSTITUTE SEMINAR IN COMMUNICATION STUDIES 1 Unit</p> <p><i>Formerly: SPCH 34</i> Prerequisite: Regular or trial membership in the Honors Institute. Advisory: Not open to students with credit in SPCH 34 or 34H. Not Repeatable. 1 hour lecture. A seminar in directed readings, discussions, and projects in speech. Specific topics to be determined by the instructor. [FHGE: Non-GE; Transferable: CSU]</p>	<p>COMM 190 DIRECTED STUDY .5 Unit</p> <p>COMM 190X DIRECTED STUDY 1 Unit</p> <p>COMM 190Y DIRECTED STUDY 1.5 Units</p> <p>COMM 190Z DIRECTED STUDY 2 Units</p> <p><i>Formerly: SPCH 190</i> Non-degree applicable credit course. Advisory: Pass/No Pass. May be taken 6 times for credit. .5 hour lecture, one and one-half laboratory for each .5 unit of credit. For students who desire or require additional help in attaining comprehension and competency in learning skills. Enrollment is limited to 6 times within the COMM 190 group. [FHGE: Non-GE; Transferable: Not transferable]</p>

COMPUTER INFORMATION SYSTEMS

Fine Arts & Communication

(650) 949-7262
www.foothill.edu/ctis/

CIS 1 INTRODUCTION TO COMPUTER SCIENCE 5 Units

Advisory: MATH 220; ENGL 1A or ESLL 26.
Not Repeatable.

4 hours lecture, 4 hours laboratory.

Provides a broad overview of the field of computer science and an introduction to software engineering. Introduces hardware, software, information systems, software development and networking. Uses a subset of a programming language to study programming and problem solving. [FHGE: Non-GE; Transferable: UC/CSU]

CIS 2 COMPUTERS & SOCIETY 5 Units

Advisory: MATH 220; ENGL 1A or ESLL 26.
Not Repeatable.

4 hours lecture, 4 hours laboratory.

A critical examination of the capabilities and uses of modern computers and how they affect society. Hands-on introduction to selected applications such as document creation, manipulation of numeric data, accessing information, decision support and expert systems, graphics and multimedia. [FHGE: Lifelong Understanding; Transferable: UC/CSU]

CIS 10 INTRODUCTION TO BUSINESS INFORMATION SYSTEMS 5 Units

Formerly: CIS 10

Advisory: MATH 220 or equivalent; eligibility for ENGL 1A or ESLL 26.
Not Repeatable.

4 hours lecture, 4 hours laboratory.

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, programming concepts, and the social impact of computers. Hands-on introduction to personal productivity software such as word processing, spreadsheet, database, and presentation applications. [FHGE: Lifelong Understanding; Transferable: UC/CSU]

CIS 12A FUNDAMENTALS OF VISUAL BASIC.NET PROGRAMMING 5 Units

Advisory: MATH 220.
Not Repeatable.

4 hours lecture, 4 hours laboratory.

Introduction to computer programming using the Visual Basic.NET 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, objects, classes, file I/O, and elementary data structures. [FHGE: Communication & Analytical Thinking; Transferable: UC/CSU]

CIS 12C INTERMEDIATE VISUAL BASIC PROGRAMMING 5 Units

Advisory: CIS 12A or equivalent.
Not Repeatable.

4 hours lecture, 4 hours laboratory.

Intermediate/advanced level course for programming and human computer interaction (HCI) using VB.NET. Includes but not limited to overview of OOP, designing classes, advanced objects, and advanced validation techniques; design and usability features using VB.NET forms and controls; database integration using SQL-Server and ADO.NET; web development using Visual Web Developer; in addition to .NET security and deployment features. [FHGE: Non-GE; Transferable: UC/CSU]

CIS 12D ADVANCED VISUAL BASIC.NET FOR WINDOWS-BASED APPLICATIONS 5 Units

Advisory: CIS 12A or equivalent.

Not Repeatable.

4 hours lecture, 4 hours laboratory.

Windows based program development using Microsoft's Visual Basic .NET programming language. Includes use of the Visual Studio.NET IDE and the .NET Framework, database programming with ADO.NET, programming handheld devices, MDI, drawing and the GDI, security, deployment. Preparation course for the Microsoft MCSD/MCAD Exam #70-306. [FHGE: Non-GE; Transferable: UC/CSU]

CIS 12W DEVELOPING WEB APPLICATIONS WITH VISUAL BASIC.NET 5 Units

Advisory: CIS 12A.

Not Repeatable.

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. [FHGE: Non-GE; Transferable: UC/CSU]

CIS 15A COMPUTER SCIENCE I: C++ 5 Units

Advisory: MATH 220

Not Repeatable.

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. [FHGE: Communication & Analytical Thinking; Transferable: UC/CSU]

CIS 15B COMPUTER SCIENCE II: C++ 5 Units

Advisory: CIS 15A.

Not Repeatable.

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. [FHGE: Non-GE; Transferable: UC/CSU]

CIS 15C COMPUTER SCIENCE III: DATA STRUCTURES & ALGORITHMS C++ 5 Units

Advisory: CIS 15B or equivalent.

Not Repeatable.

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. [FHGE: Non-GE; Transferable: UC/CSU]

CIS 15D DESIGNING WITH C++ CLASSES 5 Units

Advisory: CIS 15B or 15P.

Not Repeatable.

4 hours lecture, 4 hours laboratory.

Survey of the practice, theory and advanced techniques of object-oriented computer programming using the C++ programming languages in a practical and realistic software environment. [FHGE: Non-GE; Transferable: UC/CSU]

CIS 15P C++ FOR PROGRAMMERS 5 Units
Advisory: CIS 25A, 27B or equivalent; C or JAVA programming class.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: UC/CSU]

CIS 18 DISCRETE MATHEMATICS 5 Units
Prerequisite: Satisfactory score on the mathematics placement test or MATH 49 or 48C.
Advisory: Not open to students with credit in MATH 22; eligibility for ENGL 1A or ESLL 26.
Not Repeatable.
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. [FHGE: Communication & Analytical Thinking; Transferable: UC/CSU]

CIS 19A INTRODUCTION TO PROGRAMMING WITH C# 5 Units
Advisory: CIS 12A or 15A or 27A.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: UC/CSU]

CIS 19K USER INTERFACE DESIGN WITH EXPRESSIONS BLEND 5 Units
Advisory: 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. [Transferable: CSU]

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. [FHGE: Non-GE; Transferable: CSU]

CIS 19P ADVANCED PROGRAMMING WITH C# 5 Units
Advisory: CIS 12A, 15A, 19A or 27A.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: UC/CSU]

CIS 19W DEVELOPING WEB APPLICATIONS 5 Units
Advisory: CIS 19A.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: CSU]

CIS 25A PROGRAMMING IN C 5 Units
Advisory: Knowledge of a high-level programming language.
Not Repeatable.
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. [FHGE: Communication & Analytical Thinking; Transferable: UC/CSU]

CIS 25B ADVANCED PROGRAMMING IN C 5 Units
Advisory: CIS 25A, 15A or equivalent.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: UC/CSU]

CIS 27A COMPUTER SCIENCE I: JAVA 5 Units
Advisory: MATH 220.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: UC/CSU]

CIS 27B COMPUTER SCIENCE II: JAVA 5 Units
Advisory: CIS 27A or equivalent.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: UC/CSU]

<p>CIS 27C COMPUTER SCIENCE III: DATA STRUCTURES & ALGORITHMS IN JAVA 5 Units</p> <p>Advisory: CIS 27B. Not Repeatable. 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. [FHGE: Non-GE; Transferable: UC/CSU]</p>	<p>CIS 51C WORKPLACE PRINCIPLES & PRACTICES 4 Units</p> <p>Advisory: MATH 220; ENGL 1A or ESLL 26. Not Repeatable. 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. [FHGE: Non-GE; Transferable: CSU]</p>
<p>CIS 27D JAVA ADVANCED FEATURES 5 Units</p> <p>Advisory: CIS 27B or 27P. Not Repeatable. 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. [FHGE: Non-GE; Transferable: UC/CSU]</p>	<p>CIS 52A INTRODUCTION TO DATA MANAGEMENT SYSTEMS 5 Units</p> <p>Advisory: CIS 50A or 10. Not Repeatable. 4 hours lecture, 4 hours laboratory. Introduction to database systems and data management. Topics include database definitions and concepts, data models, relational database, client/server database, distributed database, object-oriented database, business intelligence and data warehouses, transaction management and concurrency control, database administration and security, database connectivity and web technologies, database performance, databases in e-commerce, and hands-on experience with a database management system. [FHGE: Non-GE; Transferable: CSU]</p>
<p>CIS 27P JAVA FOR PROGRAMMERS 5 Units</p> <p>Advisory: Prior C/C++ programming experience. Not Repeatable. 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. [FHGE: Non-GE; Transferable: UC/CSU]</p>	<p>CIS 52B ORACLE SQL 5 Units</p> <p>Not Repeatable. 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. [FHGE: Non-GE; Transferable: CSU]</p>
<p>CIS 30 SELECTED TOPICS IN PROGRAMMING TECHNOLOGY 5 Units</p> <p>Advisory: CIS 12A, 15A, 25A, 27A or equivalent. May be taken 3 times for credit. 4 hours lecture, 4 hours laboratory. Introduction to various programming languages and software development tools. [FHGE: Non-GE; Transferable: CSU]</p>	<p>CIS 52C DATABASE MODELING & RELATIONAL DATABASE DESIGN 5 Units</p> <p>Not Repeatable. 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. [FHGE: Non-GE; Transferable: CSU]</p>
<p>CIS 50A USING THE COMPUTER: PC (WINDOWS) 5 Units</p> <p>Advisory: Not open to students with credit in CIS 50B. Not Repeatable. 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. [FHGE: Lifelong Understanding; Transferable: CSU]</p>	<p>CIS 52E ORACLE DATABASE ADMINISTRATION I 5 Units</p> <p>Advisory: CIS 52B or equivalent. Not Repeatable. 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. [FHGE: Non-GE; Transferable: CSU]</p>
<p>CIS 51A PREPARATION FOR TECHNOLOGY CAREERS 3 Units</p> <p>Not Repeatable. 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. [FHGE: Non-GE; Transferable: CSU]</p>	

CIS 52F ORACLE DATABASE ADMINISTRATION II 5 Units

Advisory: CIS 52E or equivalent.
Not Repeatable.

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 this course. This course prepares students to take the Database Administration Oracle Certified Professional exam. [FHGE: Non-GE; Transferable: CSU]

CIS 52J ORACLE: PROGRAM WITH PL/SQL 5 Units

Advisory: CIS 52B or equivalent.
Not Repeatable.

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. [FHGE: Non-GE; Transferable: CSU]

CIS 52K ORACLE FORMS DEVELOPER: BUILD INTERNET APPLICATIONS 5 Units

Advisory: CIS 52J.
Not Repeatable.

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. [FHGE: Non-GE; Transferable: CSU]

CIS 52N PHP & MYSQL 5 Units

Not Repeatable.

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, data types, operators, strings, conditionals, loops, arrays, functions, forms, files and directories; and MySQL capabilities, including MySQL command-line options, connecting to the database, and integration of PHP and MySQL. [FHGE: Non-GE; Transferable: CSU]

CIS 52P PHP PROGRAMMING 5 Units

Advisory: CIS 52N.
Not Repeatable.

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 and exception handling, debugging, strings and regular expressions, working with files and operating system, PEAR, templating with Smarty, authenticating users, handling file uploads, PHP and email, cookies and sessions, secure coding with PHP, and PHP and MySQL integration. [FHGE: Non-GE; Transferable: CSU]

CIS 52Q MYSQL: IN-DEPTH 5 Units

Advisory: CIS 52A or equivalent.
Not Repeatable.

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. Prepares students to take the MySQL 5.0 Database Administrator and MySQL 5.0 Developer Certification exams. [FHGE:Non-GE; Transferable: CSU]

CIS 54C MICROSOFT SQL SERVER DATABASE DEVELOPMENT & DESIGN 5 Units

Not Repeatable.

4 hours lecture, 4 hours laboratory.

Students will learn database development and designing database solutions and data access using Microsoft SQL Server 2008. This course covers materials that will prepare students for MCITP: Database Developer 2008: Exam 70-433 — TS: Microsoft SQL Server 2008, Database Development and Exam 70-451 — PRO: Designing Database Solutions and Data Access Using Microsoft SQL Server 2008. [FHGE: Non-GE; Transferable: CSU]

CIS 54D MICROSOFT SQL SERVER IMPLEMENTATION & MAINTENANCE 5 Units

Not Repeatable.

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 MCITP certification series designed to prepare students for the Microsoft Certified IT Professional (MCITP): 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. [FHGE: Non-GE; Transferable: CSU]

CIS 54E MICROSOFT SQL SERVER DATABASE ADMINISTRATION 5 Units

Advisory: CIS 54D.
Not Repeatable.

4 hours lecture, 4 hours laboratory.

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 MCITP certification series designed to prepare students for the Microsoft Certified IT Professional (MCITP): Database Administrator Exam 70-450: PRO: Designing, Optimizing and Maintaining a Database Administrative Solution Using Microsoft SQL Server 2008. [FHGE: Non-GE; Transferable: CSU]

CIS 55A INTRODUCTION TO GAMES 5 Units

Not Repeatable.

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. [FHGE: Non-GE; Transferable: CSU]

CIS 55B INTRODUCTION TO GAME DESIGN 5 Units

Not Repeatable.

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. [FHGE:Non-GE; Transferable: UC/CSU]

CIS 55C PRACTICAL GAME DESIGN 5 Units

Advisory: CIS 55B.
Not Repeatable.

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 realtime interactive game. The C++ programming language will be used to implement projects. [FHGE:Non-GE; Transferable: CSU]

CIS 61A	INFORMATICS	5 Units	CIS 64B	COMPUTERIZED ACCOUNTING: SPREADSHEET	1 Unit
Advisory: CIS 10, CIS 2 or equivalent. 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. [FHGE: Non-GE; Transferable: CSU]			Prerequisite: ACTG 1B or equivalent experience. Advisory: MATH 10 or high school algebra; not open to students with credit in ACTG 64B. Not Repeatable. 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. [FHGE: Non-GE; Transferable: CSU]		
CIS 62A	DATA WAREHOUSING & WEB MINING	5 Units	CIS 68A	INTRODUCTION TO LINUX & UNIX	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 websites 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. [FHGE: Non-GE; Transferable: CSU]			Advisory: CIS 50A or equivalent. Not Repeatable. 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. [FHGE: Non-GE; Transferable: UC/CSU]		
CIS 63A	SYSTEMS ANALYSIS, DESIGN & HUMAN INTERFACE	5 Units	CIS 68B	LINUX & UNIX SHELL PROGRAMMING	5 Units
Advisory: CIS 10 or equivalent; familiarity with object-oriented computer applications; PowerPoint®, Flash®; or equivalent presentation software. Not Repeatable. 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. [FHGE: Non-GE; Transferable: CSU]			Advisory: CIS 68A or equivalent. Not Repeatable. 4 hours lecture, 4 hours laboratory. Linux shell script programming using the Bourne Again shell programming language (bash) and UNIX utilities to create practical shell scripts. [FHGE:Non-GE; Transferable: UC/CSU]		
CIS 63A1	SYSTEMS ANALYSIS & DESIGN	5 Units	CIS 68C1	LINUX & UNIX SYSTEM ADMINISTRATION	5 Units
Prerequisite: CIS 10 or equivalent. Advisory: Database or application programming; PowerPoint®; or Visio®; or equivalent presentation/diagramming software. Not Repeatable. 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. [FHGE: Non-GE; Transferable: CSU]			Advisory: CIS 68A or equivalent. Not Repeatable. 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. [FHGE: Non-GE; Transferable: UC/CSU]		
CIS 63B	DESIGN & ANALYSIS FOR INFORMATICS RESEARCH	5 Units	CIS 68C2	LINUX & UNIX NETWORKING ADMINISTRATION	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. [FHGE: Non-GE; Transferable: CSU]			Advisory: CIS 68A, 68B and 68C1 or equivalent experience. Not Repeatable. 4 hours lecture, 4 hours laboratory. Advanced networking administration of the UNIX operating system. Hands on experience with network setup, configuration and maintenance. [FHGE: Non-GE; Transferable: CSU]		
CIS 64A	COMPUTERIZED ACCOUNTING PRACTICE	1 Unit	CIS 68C3	UNIX NAME SERVICE ADMINISTRATION	3 Units
Prerequisites: ACTG 1A or equivalent experience. Advisory: MATH 10 or high school algebra; not open to students with credit in ACTG 64A. Not Repeatable. 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. [FHGE: Non-GE; Transferable: CSU]			Prerequisite: CIS 68C2 or equivalent experience. 2 hours lecture, 2 hours lecture-laboratory. Administration of a UNIX system operating in remote mode using a name service. Hands-on experience with configuration and maintenance. [FHGE: Non-GE; Transferable: CSU]		

CIS 68E PROGRAMMING IN PERL 5 Units
Advisory: CIS 68A; one or more of CIS 15A or 25A or 27A or equivalent experience.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: UC/CSU]

CIS 68H BIOPERL PROGRAMMING FOR BIOINFORMATICS 5 Units
Advisory: CIS 68E or equivalent.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: UC/CSU]

CIS 68K INTRODUCTION TO PYTHON PROGRAMMING 5 Units
Advisory: CIS 15A or 27A, and CIS 68A.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: UC/CSU]

CIS 68L INTERMEDIATE PYTHON PROGRAMMING 5 Units
Advisory: CIS 68K.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: UC/CSU]

CIS 68M INTERMEDIATE PERL PROGRAMMING 5 Units
Advisory: CIS 68E or some Perl programming experience; CIS 68B.
Not Repeatable.
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 it's 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. [FHGE:Non-GE; Transferable: CSU]

CIS 78 SOFTWARE ENGINEERING 5 Units
Advisory: Any structured programming class.
Not Repeatable.

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. [FHGE: Non-GE; Transferable: UC/CSU]

CIS 96 SPECIAL PROJECTS 1 Unit
CIS 96X 2 Units
CIS 96Y 3 Units

May be taken 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. Enrollment is limited to 6 times within the CIS 96 group. [FHGE: Non-GE; Transferable: CSU]

CIS 102 COMPUTER KEYBOARDING SKILLS .5 Unit
Advisory: Pass/No Pass; not open to students with credit in CAST 102.
Not Repeatable.

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. [FHGE: Non-GE; Transferable: Not transferable]

CIS 111 LEARNING-COLLABORATIVE TRAINING 1 Unit

Non-degree applicable credit course.
Prerequisites: 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. [FHGE: Non-GE; Transferable: Not transferable]

COMPUTER NETWORKING & ELECTRONICS

Physical Sciences, Math & Engineering (650) 949-7259
www.foothill.edu/ctis/

CNET 50 INTRODUCTION TO COMPUTER NETWORKING 5 Units

Not Repeatable.
4 hours of lecture, 3 hours laboratory.
 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. [FHGE: Non-GE; Transferable: CSU]

<p>CNET 52A INTRODUCTION TO COMPUTERS & INFORMATION COMMUNICATIONS TECHNOLOGY 5 Units</p> <p>Not Repeatable. 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, 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. [FHGE: Non-GE; Transferable: CSU]</p>	<p>CNET 53A INTRODUCTION TO NETWORK MANGEMENT 5 Units</p> <p>Advisory: CNET 50 or equivalent. Not Repeatable. 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. [FHGE: Non-GE; Transferable: CSU]</p>	<p>CNET 53B OPERATING JUNIPER ROUTERS IN THE ENTERPRISE 5 Units</p> <p>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). [FHGE: Non-GE; Transferable: CSU]</p>	<p>CNET 53C ADVANCED JUNIPER NETWORKS ROUTING IN THE ENTERPRISE 5 Units</p> <p>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 (JNCIS-ER, Exam JN0-350). [FHGE: Non-GE; Transferable: CSU]</p>	<p>CNET 53F INFORMATION STORAGE MANAGEMENT 5 Units</p> <p>Advisory: CNET 54A or equivalent. Not Repeatable. 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. [FHGE: Non-GE; Transferable: CSU]</p>	<p>CNET 53M DESIGNING CISCO INTERNETWORKING SOLUTIONS 5 Units</p> <p>May be taken 3 times for credit. 4 hours lecture, 4 hours laboratory. This 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. [FHGE:Non-GE; Transferable: CSU]</p>	<p>CNET 53N FUNDAMENTALS OF ENTERPRISE NETWORK DESIGN 5 Units</p> <p>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. [FHGE:Non-GE; Transferable: CSU]</p>	<p>CNET 54A NETWORKING FUNDAMENTALS & THE TCP/IP PROTOCOL SUITE (CCNA I) 5 Units</p> <p>Advisory: CNET 50. May be taken 3 times for credit. 4 hours lecture, 4 hours laboratory. This 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. [FHGE: Non-GE; Transferable: CSU]</p>	<p>CNET 54B ROUTING PROTOCOLS & CONCEPTS (CCNA II) 5 Units</p> <p>Advisory: CNET 54A or equivalent. May be taken 3 times for credit. 4 hours lecture, 4 hours laboratory. This course is an introduction to router and routing concepts and terminology including distance vector and link state routing, RIPv1 and RIPv2, IGRP and IGRP 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. [FHGE: Non-GE; Transferable: CSU]</p>
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CNET 54C LAN SWITCHING & WIRELESS NETWORKS (CCNA III) 5 Units

Advisory: CNET 54B or equivalent.

May be taken 3 times for credit.

4 hours lecture, 4 hours laboratory.

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. [FHGE: Non-GE; Transferable: 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.

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. [FHGE: Non-GE; Transferable: CSU]

CNET 54E CCNA SECURITY 5 Units

Advisory: CNET 54D, CCNA Certification or equivalent.

Not Repeatable.

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. [FHGE: Non-GE; Transferable: 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.

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. [FHGE: Non-GE; Transferable: 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.

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. [FHGE: Non-GE; Transferable: 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.

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. [FHGE: Non-GE; Transferable: 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.

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. [FHGE: Non-GE; Transferable: 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.

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. [FHGE: Non-GE; Transferable: CSU]

CNET 54M CISCO NETWORK SECURITY II - VIRTUAL PRIVATE NETWORKS, INTRUSION DETECTION SYSTEMS & INTRUSION PREVENTION SYSTEMS 5 Units

Advisory: CNET 54D or Cisco CCNA Certification.

May be taken 3 times for credit.

4 hours lecture, 4 hours laboratory.

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. [FHGE: Non-GE; Transferable: 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.

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. [FHGE: Non-GE; Transferable: CSU]

<p>CNET 54Q INTRODUCTION TO VOICE OVER IP (VOIP) TECHNOLOGIES 5 Units</p> <p>Advisory: CNET 54D or Cisco CCNA Certification or equivalent experience. May be taken 3 times for credit. 4 hours lecture, 4 hours laboratory. This introductory course focuses on the basics of IP Telephony and Voice over IP technology. Participants will learn basic concepts and vocabulary of IPT 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. [FHGE: Non-GE; Transferable: CSU]</p>	<p>CNET 56G THE CERTIFIED INFORMATION SYSTEMS PROFESSIONAL 5 Units</p> <p>Advisory: CNET 56A or equivalent. Not Repeatable. 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. [FHGE:Non-GE; Transferable: CSU]</p>
<p>CNET 56A INTRODUCTION TO NETWORK SECURITY 5 Units</p> <p>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. [FHGE: Non-GE; Transferable: CSU]</p>	<p>CNET 56J FUNDAMENTALS OF COMPUTER FORENSICS 5 Units</p> <p>Advisory: CNET 116A and 116B. Not Repeatable. 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. [FHGE: Non-GE; Transferable: CSU]</p>
<p>CNET 56B INTRUSION DETECTION, AWARENESS, ANALYSIS & PREVENTION 5 Units</p> <p>Advisory: CNET 54A, 56A or equivalent. Not Repeatable. 4 hours lecture, 4 hours laboratory. Students will apply network security concepts to the management of enterprise network threats, outages and incident response. Student 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. [FHGE: Non-GE; Transferable: CSU]</p>	<p>CNET 60F MICROSOFT WINDOWS 2003 EXCHANGE SERVER 5 Units</p> <p>Advisory: Familiarity with Windows Networking and Administration. Not Repeatable. 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. [FHGE: Non-GE; Transferable: CSU]</p>
<p>CNET 56C NETWORK SECURITY PENETRATION TESTING & ETHICAL HACKING 5 Units</p> <p>Advisory: CNET56A or equivalent. May be taken 3 times for credit. 4 hours lecture, 4 hours laboratory. 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. [FHGE:Non-GE; Transferable: CSU]</p>	<p>CNET 60K POWERSHELL SCRIPTING 5 Units</p> <p>Advisory: Familiarity with Windows Networking and Administration. 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. [FHGE:Non-GE; Transferable: CSU]</p>
<p>CNET 56E WINDOWS XP/2000/2003 SYSTEM SECURITY 5 Units</p> <p>Advisory: CNET 54A and 56A or equivalent experience. Not Repeatable. 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. [FHGE: Non-GE; Transferable: CSU]</p>	<p>CNET 65A WIRELESS NETWORK ADMINISTRATION 5 Units</p> <p>Advisory: CNET 50. Not Repeatable. 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. [FHGE: Non-GE; Transferable: CSU]</p>
<p>CNET 56F LINUX & UNIX SYSTEM SECURITY 5 Units</p> <p>Advisory: CNET 56A, CIS 68C2, or equivalent experience. Not Repeatable. 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. [FHGE: Non-GE; Transferable: CSU]</p>	<p>CNET 65B WIRELESS NETWORK SECURITY 5 Units</p> <p>Advisory: CNET 50 and 65A. Not Repeatable. 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. [FHGE: Non-GE; Transferable: CSU]</p>

CNET 65C	WIRELESS NETWORK ANALYSIS	5 Units	CNET 75F	WINDOWS SERVER 2008 ENTERPRISE ADMINISTRATION	5 Units
<p>Advisory: CNET 50 and 65A. Not Repeatable. 4 hours lecture, 2 hours laboratory. This course provides students with the knowledge and skills necessary to analyze and troubleshoot wireless 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. [FHGE: Non-GE; Transferable: CSU]</p>			<p>Advisory: CNET 75B, 75C, and 75D. Not Repeatable. 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. This course maps to Microsoft exam 70-647, Windows Server 2008 Enterprise Administrator. [FHGE: Non-GE; Transferable: CSU]</p>		
CNET 75A	MICROSOFT WINDOWS VISTA	5 Units	CNET 75G	WINDOWS VISTA CLIENT ENTERPRISE SUPPORT TECHNICIANS	5 Units
<p>Advisory: CNET 50. Not Repeatable. 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 home, work group, domain, and multiple domain network environments. The course provides the information necessary to pass the Microsoft Certification Exam, 70-620 Configuring Microsoft VISTA Client. [FHGE: Non-GE; Transferable: CSU]</p>			<p>Advisory: CNET 50, 75A. Not Repeatable. 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. FHGE-Non-GE; Transferable: CSU</p>		
CNET 75B	WINDOWS SERVER 2008 NETWORK INFRASTRUCTURE	5 Units	CNET 75I	MICROSOFT WINDOWS 2007 EXCHANGE SERVER	5 Units
<p>Advisory: CNET 50 and 75A. Not Repeatable. 4 hours lecture, 2 hours laboratory. This course provides the knowledge and skills 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. This course maps to Microsoft Exam 70-642, Windows Server 2008 Network Infrastructure Configuration. [FHGE: Non-GE; Transferable: CSU]</p>			<p>Advisory: CNET 75C. Not Repeatable. 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. [FHGE: Non-GE; Transferable: CSU]</p>		
CNET 75C	WINDOWS SERVER 2008 ACTIVE DIRECTORY	5 Units	CNET 80A	SELECTED TOPICS IN NETWORK TECHNOLOGY	4 Units
<p>Advisory: CNET 75A and 75B. Not Repeatable. 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. This course maps to Microsoft Exam 70-640, Windows Server 2008 Active Directory Configuration. [FHGE: Non-GE; Transferable: CSU]</p>			<p>Advisory: CNET 54A, 56A, 54M, 54N 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. [FHGE:Non-GE; Transferable: CSU]</p>		
CNET 75D	WINDOWS SERVER 2008 APPLICATION PLATFORMS	5 Units	CNET 95A	CABLE INSTALLATION & TERMINATION	2 Units
<p>Advisory: CNET 75A and 75B. Not Repeatable. 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. [FHGE: Non-GE; Transferable: CSU]</p>			<p>Advisory: CNET 50. Not Repeatable. 1 hour lecture, 3 hours laboratory. Methods and materials used in the installation and termination of network wiring topologies. [FHGE: Non-GE; Transferable: CSU]</p>		
CNET 75E	WINDOWS SERVER 2008 SERVER ADMINISTRATOR	5 Units	CNET 95G	NETWORK TESTING & TROUBLESHOOTING	2 Units
<p>Advisory: CNET 75B and 75C. Not Repeatable. 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. [FHGE: Non-GE; Transferable: CSU]</p>			<p>Advisory: CNET 95A or equivalent. Not Repeatable. 1 hour lecture, 1 hour lecture-laboratory, 3 hours laboratory. Methods and procedures required to test and troubleshoot systems in local- and wide-area networks. [FHGE: Non-GE; Transferable: CSU]</p>		
			CNET 97A	A PRACTICUM IN ENTERPRISE SECURITY	7 Units
			<p>Advisory: CNET 56A, 54A. Not Repeatable. 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. [FHGE: Non-GE; Transferable: CSU]</p>		

CNET 99 CNET PROJECT 2 Units
Not Repeatable.
 1 hour lecture, 3 hours laboratory.
 Electronic project construct, test, documentation and reporting contracted with an instructor. [FHGE: Non-GE; Transferable: 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. [FHGE: Non-GE; Transferable: Not transferable]

CNET 113 HOME TECHNOLOGY INTEGRATOR & 5 Units
COMPTIA/CEDIA INSTALLER I
Advisory: 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. [FHGE: Non-GE; Transferable: Not transferable]

CNET 116A INTRODUCTION TO PC ELECTRONICS 5 Units
& THE COMMAND LINE (A+ PREP)
Advisory: MATH 220.
Not Repeatable.
 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). [FHGE: Non-GE; Transferable: Not transferable]

CNET 116B WINDOWS INSTALLATION, 5 Units
UPGRADING & TROUBLESHOOTING (A+ PREP)
Advisory: CNET 116A.
Not Repeatable.
 4 hours lecture, 4 hours laboratory.
 Review of PC hardware and hardware 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. [FHGE: Non-GE; Transferable: Not transferable]

CNET 118 OTI: WORK SKILLS IN A TECHNICAL 4 Units
SUPPORT ROLE
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.
Not Repeatable.
 4 hours lecture.
 Basic theory and application of technical support including customer interaction, tools, root cause analysis and problem solving. [FHGE: Non-GE; Transferable: Not transferable]

CNET 119 BUSINESS SKILLS FOR SERVICE/ 4 Units
SUPPORT & PROJECT MANAGEMENT
Prerequisites: Basic computer skills (Word and Excel and, if possible, PowerPoint).
Advisory: MATH 220; ENGL 110 or ESLL 25; CIS 50A, CNET 51A or equivalent; Learn CCCConfer, Etudes NG, Project software, CRM Software.
Not Repeatable.
 3 hours lecture, 4 hours laboratory.
 Project Management and Service/Support Skills are in high demand in the career marketplace. These include teamwork, decision-making, leadership, innovation, scoping, 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). [FHGE: Non-GE; Transferable: Not transferable]

COMPUTERS & SOFTWARE TRAINING

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CAST 50D USING ACCESS 3 Units
Formerly: CAST 109F
Advisory: CIS 50A or equivalent.
Not Repeatable.
 .5 hours lecture, 1.5 hours lecture-laboratory, 1.5 hours laboratory.
 Introduction to Microsoft Access, a relational database management software tool. [FHGE: Non-GE; Transferable: CSU]

CAST 50E LINUX DESKTOP INSTALLATION 3 Units
Advisory: CIS 50A; basic computer skills or equivalent.
May be taken 4 times for credit.
 1.5 hours lecture, 1.5 hours lecture-laboratory, 3 hours laboratory.
 This course facilitates installation of the Linux operating system on personal home or office desktop/laptop computers covering configuration of many audio/video, photo and document processing, games and other selected programs. Note: this is not intended to be a replacement for CIS 68A. [FHGE: Non-GE; Transferable: CSU]

CAST 52A INTRODUCTION TO 5 Units
MACROMEDIA FLASH
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. [FHGE: Non-GE; Transferable: 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. [FHGE: Non-GE; Transferable: CSU]

CAST 56A INTRODUCTION TO FILEMAKER PRO 4 Units
May be taken 2 times for credit.
 2.5 hours lecture, 4.5 hours laboratory.
 Introduction to using and designing databases on this popular relational, cross-platform database program. Hands-on experience creating databases structures and interfaces. [FHGE: Non-GE; Transferable: CSU]

CAST 63A INTRODUCTION TO COMPUTER- 4 Units
AIDED DRAFTING USING AUTODESK AUTOCAD
Advisory: Knowledge of drafting fundamentals.
Not Repeatable.
 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. [FHGE: Non-GE; Transferable: 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.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: CSU]
- CAST 64A INTRODUCTION TO AUTODESK MECHANICAL DESKTOP SOFTWARE (AUTODESK INVENTOR PROFESSIONAL) 4 Units**
Advisory: CAST 63A, 63B; knowledge of drafting fundamentals.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: CSU]
- CAST 65A INTRODUCTION TO AUTODESK ARCHITECTURAL DESKTOP SOFTWARE 4 Units**
Advisory: CAST 63A; knowledge of drafting fundamentals.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: CSU]
- CAST 66A INTRODUCTION TO AUTODESK CIVIL 3D SOFTWARE 4 Units**
Advisory: CAST 63A; knowledge of drafting fundamentals.
Not Repeatable.
3 hours lecture, 2 hours lecture-laboratory.
 For students preparing for careers in General Design and Drafting; Architectural Building Design and Engineering; and Civil 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. [FHGE: Non-GE; Transferable: 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 creating and editing digital video and integrating video, sound, animation and graphics into multimedia presentations. [FHGE: Non-GE; Transferable: CSU]
- CAST 70B MULTIMEDIA DESIGN & AUTHORING 4 Units**
Advisory: CIS 50A or equivalent.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: 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. [FHGE: Non-GE; Transferable: CSU]
- CAST 70D 3D MODELING & ANIMATION FOR MULTIMEDIA 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.
 Fundamentals of 3D modeling and animation for multimedia. Hands-on experience with modeling, rendering, and animation; and conversion techniques utilizing QuickTime and other technologies. [FHGE: Non-GE; Transferable: CSU]
- CAST 70E INTRODUCTION TO DVD AUTHORIZING 4 Units**
Advisory: CIS 50A 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. [FHGE: Non-GE; Transferable: 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. [FHGE: Non-GE; Transferable: 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. [FHGE: Non-GE; Transferable: 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.
3 hours lecture.
 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. [FHGE: Non-GE; Transferable: CSU]

CAST 80	SELECTED TOPICS IN SOFTWARE APPLICATIONS	4 Units	CAST 93A	POWERPOINT: EFFECTIVE PRESENTATIONS	4 Units
<p>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. [FHGE: Non-GE; Transferable: CSU]</p>			<p>Advisory: CIS 50A. May be taken 3 times for credit. 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 and putting a presentation on the Web and other presentation delivery techniques. [FHGE: Non-GE; Transferable: CSU]</p>		
CAST 86A	INTRODUCTION TO ADOBE INDESIGN	4 Units	CAST 102	COMPUTER KEYBOARDING SKILLS	.5 Unit
<p>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 Adobe InDesign and its use in electronic layout and print media problem solving. Hands-on experience with the basic elements and tools of InDesign. [FHGE: Non-GE; Transferable: CSU]</p>			<p>Advisory: Pass/No Pass; not open to students with credit in CIS 102. Not Repeatable. 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. [FHGE: Non-GE; Transferable: CSU]</p>		
CAST 86B	ADVANCED ADOBE INDESIGN	4 Units	CAST 102B	MICROSOFT WINDOWS: BASICS	4 Units
<p>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. [FHGE: Non-GE; Transferable: CSU]</p>			<p>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. [FHGE: Non-GE; Transferable: Not transferable]</p>		
CAST 90A	INTRODUCTION TO ADOBE ILLUSTRATOR	4 Units	CAST 102C	WINDOWS: HARD DISK MANAGEMENT & UTILITIES	3 Units
<p>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 the basic elements and tools of Adobe Illustrator to produce one-page illustrations. [FHGE: Non-GE; Transferable: CSU]</p>			<p>Not Repeatable. 1.5 hours lecture, 1.5 hours lecture-laboratory, 1.5 hours laboratory. Hands-on introduction to hard disk management, memory management, and the use of utility software; virus software, software installation and peripherals. [FHGE: Non-GE; Transferable: Not transferable]</p>		
CAST 90B	ADVANCED ADOBE ILLUSTRATOR	4 Units	CAST 104A	MICROSOFT WORD I	3 Units
<p>Advisory: CAST 90A 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 Adobe Illustrator and its use in graphic illustrations and problem solving. Software capabilities and limitations. [FHGE: Non-GE; Transferable: CSU]</p>			<p>Advisory: CIS 50A. May be taken 4 times for credit. 3 hours lecture. 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. [FHGE: Non-GE; Transferable: Not transferable]</p>		
CAST 92A	INTRODUCTION TO ADOBE PHOTOSHOP	4 Units	CAST 104B	MICROSOFT WORD II	3 Units
<p>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. [FHGE: Non-GE; Transferable: CSU]</p>			<p>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. [FHGE: Non-GE; Transferable: Not transferable]</p>		
CAST 92B	ADVANCED ADOBE PHOTOSHOP	4 Units	CAST 107	INTRODUCTION TO EXCEL	3 Units
<p>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. [FHGE: Non-GE; Transferable: CSU]</p>			<p>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. [FHGE: Non-GE; Transferable: Not transferable]</p>		
CAST 92E	INTRODUCTION TO ADOBE PHOTOSHOP ELEMENTS	4 Units			
<p>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. [FHGE: Non-GE; Transferable: CSU]</p>					

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, databases and macros across various microcomputer platforms. [FHGE: Non-GE; Transferable: Not transferable]

CAST 109F USING ACCESS 3 Units
Advisory: CIS 50A or equivalent.
Not Repeatable.
 .5 hours lecture, 1.5 hours lecture-laboratory, 1.5 hours laboratory.
 Introduction to Microsoft Access, a relational database management software tool. [FHGE: Non-GE; Transferable: Not transferable]

CAST 221 OVERVIEW OF ADOBE PHOTOSHOP 1 Unit
Non-degree applicable credit course.
Advisory: Not open to students with credit in CAST 92A.
Not Repeatable.
 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. [FHGE: Non-GE; Transferable: Not transferable]

COMPUTING ON THE INTERNET

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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 learn about/use evolving Internet technologies and resources. [FHGE: Lifelong Understanding; Transferable: 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 e-commerce 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 infrastructure. [FHGE: Non-GE; Transferable: 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 100 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 a functional project plan for designing, building, launching, managing, and marketing a WWW commerce site. [FHGE: Non-GE; Transferable: 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 using current standards. Students will produce a validated multi-page Web site with image, text, and links; tables, frames, forms and simple multimedia. Students will upload and modify documents to a web server, understand client interactions, and planning, designing, testing and maintaining of a Web site. This course is based on knowledge of basic Internet and Web applications. [FHGE: Non-GE; Transferable: 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. [FHGE: Non-GE; Transferable: CSU]

COIN 65 USING CASCADING STYLE SHEETS FOR DESIGN 5 Units

Advisory: COIN 61 and 63 strongly recommended.
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. [FHGE: Non-GE; Transferable: 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. [FHGE: Non-GE; Transferable: CSU]

COIN 67 RUBY ON RAILS - WEB APPLICATION DEVELOPMENT 5 Units

Advisory: Prior programming experience; CIS 52A or database experience.
Not Repeatable.
 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. [FHGE: Non-GE; Transferable: 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. [FHGE: Non-GE; Transferable: 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, browser detection and other related elements. This class is designed for students who have intermediate-level knowledge of an object-oriented programming language. [FHGE: Non-GE; Transferable: CSU]

COIN 71 APPLICATION SOFTWARE DEVELOPMENT WITH AJAX 5 Units

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 websites 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. [FHGE: Non-GE; Transferable: CSU]

COIN 72 WEB MARKETING 4 Units

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.
Marketing concepts and theories on how to market and advertise your web site effectively on the Internet, fine tuning to compete with successful online technologies and current practices. [FHGE: Non-GE; Transferable: CSU]

COIN 74A WEB PUBLISHING TOOLS: DREAMWEAVER BASICS 5 Units

Advisory: CIS 50A, COIN 51 and 61 strongly recommended.
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. [FHGE:Non-GE; Transferable: CSU]

COIN 78 EXTENSIBLE MARKUP LANGUAGE (XML) 5 Units

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. [FHGE: Non-GE; Transferable: CSU]

COIN 78B INTERNET PROGRAMMING WITH XML 5 Units

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. [FHGE: Non-GE; Transferable: CSU]

COIN 78C XML FOR INFORMATICS 5 Units

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 RKF (Rapid Knowledge Formation), DAML, and Web based inference and ontology engines. [FHGE: Non-GE; Transferable: CSU]

COIN 78D USER INTERFACE DESIGN WITH EXPRESSION BLEND 5 Units

Advisory: 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. [FHGE:Non-GE; Transferable: CSU]

COIN 80 SELECTED TOPICS IN INTERNET TECHNOLOGY 4 Units

Advisory: COIN 63.
May be taken 3 times for credit.
1.5 hours lecture, 1.5 hours lecture-laboratory, 3 hours laboratory.
Introduction to various Internet technologies and Web development tools. [FHGE: Non-GE; Transferable: CSU]

COIN 81 INTRODUCTION TO BIOINFORMATICS TOOLS & DATABASES 5 Units

Prerequisite: Knowledge of molecular biology.
Advisory: COIN 51 or equivalent; BTEC 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 as 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. [FHGE: Non-GE; Transferable: 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. [FHGE: Non-GE; Transferable: 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 deploying 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. [FHGE: Social & Behavioral Sciences; Transferable: CSU]

COOPERATIVE WORK EXPERIENCE EDUCATION

Business & Social Sciences

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CWE 55	OCCUPATIONAL WORK EXPERIENCE	1 Unit
CWE 55A		2 Units
CWE 55B		3 Units
CWE 55C		4 Units
CWE 55D		5 Units
CWE 55E		6 Units

Prerequisite: Student must be working in a job related to a declared occupational, vocational or educational goal. 50 hours of paid employment per quarter for each unit of credit is required.

May be taken 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. Enrollment is limited to 6 times within the CWE 55 and 75 group. [FHGE: Non-GE; Transferable: CSU]

CWE 56	OCCUPATIONAL WORK EXPERIENCE:	1 Unit
	COMMUNITY SERVICE	

Prerequisites: Student must be volunteering in a non-profit organization. 40 hours of volunteer work per quarter for each unit of credit.

May be taken 6 times for credit.

40 hours of volunteer 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. Enrollment is limited to 6 times within the CWE 56 and 76 groups. [FHGE: Non-GE; Transferable: 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. [FHGE: Non-GE; Transferable: CSU]

CWE 65B OCCUPATIONAL WORK EXPERIENCE: APPRENTICE-SOUND & COMMUNICATIONS 4 Units

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. [FHGE: Non-GE; Transferable: CSU]

CWE 65C OCCUPATIONAL WORK EXPERIENCE: APPRENTICE-PLUMBING 4 Units

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

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. [FHGE: Non-GE; Transferable: CSU]

CWE 65D OCCUPATIONAL WORK EXPERIENCE: APPRENTICE-ELECTRICAL 4 Units

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.

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. [FHGE: Non-GE; Transferable: CSU]

CWE 75 GENERAL WORK EXPERIENCE 1 Unit

Prerequisite: Student must be employed. 50 hours of paid employment per quarter for each unit of credit.

May be taken 6 times for credit.

50 hours of paid employment.

The CWE Program promotes on-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. Enrollment is limited to 6 times within the CWE 55 and 75 group. [FHGE: Non-GE; Transferable: CSU]

CWE 75A GENERAL WORK EXPERIENCE 2 Units
CWE 75B 3 Units
CWE 75C 4 Units

Prerequisite: Student must be employed. 50 hours of paid employment per quarter for each unit of credit.

May be taken 4 times for credit.

One hundred hours paid employment.

The CWE Program promotes on-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. Enrollment is limited to 6 times within the CWE 55 and 75 group. [FHGE: Non-GE; Transferable: CSU]

CWE 76 GENERAL WORK EXPERIENCE- 1 Unit
CWE 76C COMMUNITY SERVICE 4 Units
CWE 76D 5 Units
CWE 76E 6 Units

Prerequisite: Student must be volunteering at a community service organization. 40 hours of volunteer community service per quarter for each unit of credit.

May be taken 6 times for credit.

40 hours of volunteer employment for each unit of credit.

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. Enrollment is limited to 6 times within the CWE 56 and 76 groups. [FHGE: Non-GE; Transferable: CSU]

COUNSELING

Counseling & Student Services (650) 949-7296
www.foothill.edu/transfer/counseling.html

CNSL 1 COLLEGE SUCCESS 3 Units

Not Repeatable.

3 hours lecture.

Examination of factors that contribute to college success, including responsibility/control; competition; task-precision; expectations; wellness; time management; college involvement; family/support systems involvement. Activities include: testing and individualized evaluations; group processing and practicum. [FHGE: Lifelong Understanding; Transferable: UC/CSU]

CNSL 2 COLLEGE & LIFE MANAGEMENT 4 Units

Not Repeatable.

3 hours lecture, 3 hours laboratory.

Examination of psycho-social and wellness issues related to personal and academic success. Explores theories and practice for effective goal-setting, communication, health and wellness, learning and social growth. [FHGE: Lifelong Understanding; Transferable: CSU]

CNSL 50 INTRODUCTION TO COLLEGE 1 Unit

Not Repeatable.

1 hour lecture.

Orientation to Foothill College academic policies, resources, programs and services; introduction to California systems of higher education; formulation of educational plan. [FHGE: Non-GE; Transferable: CSU]

<p>CNSL 51 PASS THE TORCH TRAINING: LEARNING STRATEGIES FOR STUDENTS PAIRED IN ONE-TO-ONE STUDY TEAMS 1 Unit</p> <p>Not Repeatable. 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. [FHGE: Non-GE; Transferable: CSU]</p>	<p>CNSL 87 LEADERSHIP: THEORIES & PRACTICES 1 Unit</p> <p>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. [FHGE: Non-GE; Transferable: CSU]</p>
<p>CNSL 53 EFFECTIVE STUDY 3 Units</p> <p>Not Repeatable. 3 hours lecture. Approaches to college learning, including diagnosis of difficulties and a development of new skills. [FHGE: Non-GE; Transferable: CSU]</p>	<p>CNSL 88 LEADERSHIP: THEORIES, STYLES & REALITIES 1 Unit</p> <p>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. [FHGE: Non-GE; Transferable: CSU]</p>
<p>CNSL 72 STRESS, WELLNESS & COPING 3 Units</p> <p>Not Repeatable. 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. [FHGE: Lifelong Understanding; Transferable: CSU]</p>	<p>CNSL 89 ADVANCED LEADERSHIP: THEORIES, STYLES & REALITIES 1 Unit</p> <p>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. [FHGE: Non-GE; Transferable: CSU]</p>
<p>CNSL 85H TRANSFER READINESS 1 Unit</p> <p>Not Repeatable. 1 hour lecture. Learn to choose a college or university; prepare academically; apply and use counselors and transfer programs to enhance transfer eligibility. [FHGE: Non-GE; Transferable: CSU]</p>	<p>CNSL 90 INTRODUCTION TO ONLINE LEARNING 1 Unit</p> <p>Advisory: Familiarity with an internet browser and e-mail. Not Repeatable. 1 hour lecture, 1.5 hours laboratory. This course covers concepts, tools and techniques for success in on-line learning. Through self-assessment, On-line interaction, and use of the various tools and resources of the Internet the student will develop an understanding of the skills needed to be successful when engaging in on-line instruction. [FHGE: Lifelong Understanding; Transferable: CSU]</p>
<p>CNSL 86 INTRODUCTION TO LEADERSHIP 1 Unit CNSL 86X 2 Units CNSL 86Y 3 Units</p> <p>Advisory: Eligibility for ENGL 110 or ESLL 25. May be taken 3 times for credit. 1 hour lecture. Introduction to 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. [FHGE: Non-GE; Transferable: CSU]</p>	<p>CNSL 175 EOPS: THE ROAD TO COLLEGE SUCCESS - MORE THAN JUST BOOKS 1 Unit</p> <p>Not Repeatable. 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. [FHGE: Non-GE; Transferable: Not transferable]</p>
<p>CNSL 86LX LEADERSHIP LABORATORY 1 Unit CNSL 86LY 2 Units CNSL 86LZ 3 Units</p> <p>May be taken 6 times for credit. 3 hours laboratory for each unit of credit. Practical field experience for students in campus leadership positions, related to material being presented in CNSL 86. Enrollment is limited to 6 times within the CNSL 86L group. [FHGE: Non-GE; Transferable: CSU]</p>	

CREATIVE WRITING

Language Arts

(650) 949-7678
www.foothill.edu/la/

CRWR 6 INTRODUCTION TO CREATIVE WRITING 5 Units

Prerequisite: Eligibility for ENGL 1A.
Not Repeatable.

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. [FHGE: Humanities; Transferable: UC/CSU]

CRWR 34H HONORS INSTITUTE SEMINAR IN CREATIVE WRITING 1 Unit

Formerly: CRWR 34

Prerequisites: Honors Institute participant; eligibility for ENGL 1A.

Advisory: Not open to students with credit in CRWR 34.

Not Repeatable.

1 hour lecture.

A seminar in directed readings, discussions and projects in creative writing. Specific topics to be determined by the instructor. [FHGE: Non-GE; Transferable: CSU]

CRWR 36C SCREENPLAY WRITING 4 Units

Advisory: Not open to students with credit in DRAM 5C, F TV 5C or VART 5B.

May be taken 6 times for credit.

4 hours lecture.

Intermediate writing for television and film. Examination and practice of story structure, character development, dialogue crafting, with an emphasis on understanding the visual nature and unique requirements of writing for television and film. [FHGE: Non-GE; Transferable: CSU]

CRWR 39A INTRODUCTION TO 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. [FHGE: Humanities; Transferable: UC/CSU]

CRWR 39B ADVANCED SHORT FICTION WRITING 5 Units

Prerequisite: CRWR 39A.

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. Class presentations and workshop leadership. Lecture and workshop. Analysis of public readings and/or interviews with writers. [FHGE: Humanities; Transferable: UC/CSU]

CRWR 40 INTRODUCTION TO WRITING THE NOVEL 5 Units

Advisory: Eligibility for ENGL 1A.

May be taken 4 times for credit.

5 hours lecture.

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. [FHGE: Humanities; Transferable: UC/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. Assignments include reading, analyzing and responding to published and student work and writing original work. Lecture and workshop. [FHGE: Humanities; Transferable: UC/CSU]

CRWR 41B ADVANCED POETRY WRITING 5 Units

Prerequisite: CRWR 41A.

May be taken 2 times for credit.

5 hours lecture, 1 hour laboratory.

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. [FHGE: Humanities; Transferable: UC/CSU]

DANCE

Physical Education

(650) 949-7741
www.foothill.edu/dance

DANC 1A FUNDAMENTALS OF BALLET I 1 Unit

May be taken 6 times for credit.

3 hours laboratory.

Introduction to the elementary fundamentals of ballet technique and training. Includes the basic vocabulary and practice of barre and center floor exercises. Enrollment is limited to 6 times within the DANC 1 group. [FHGE: Lifelong Understanding; Transferable: UC/CSU]

DANC 1B FUNDAMENTALS OF BALLET II 1 Unit

May be taken 6 times for credit.

3 hours laboratory.

Continuation into the intermediate/advanced fundamentals of ballet technique and training. Includes the intermediate/advanced vocabulary and practice of barre and center floor exercises. Enrollment is limited to 6 times within the DANC 1 group. [FHGE: Lifelong Understanding; Transferable: UC/CSU]

DANC 2 BEGINNING MODERN DANCE 1 Unit

May be taken 6 times for credit.

3 hours laboratory.

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. [FHGE: Lifelong Understanding; Transferable: UC/CSU]

DANC 3A BEGINNING JAZZ DANCE 1 Unit

May be taken 6 times for credit.

3 hours laboratory.

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. Enrollment is limited to 6 times within the DANC 3 group. [FHGE: Lifelong Understanding; Transferable: UC/CSU]

DANC 3B INTERMEDIATE JAZZ DANCE 1 Unit

May be taken 6 times for credit.

3 hours laboratory.

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. Enrollment is limited to 6 times within the DANC 3 group. [FHGE: Lifelong Understanding; Transferable: UC/CSU]

DANC 4	BALLROOM & SOCIAL DANCE	1 Unit
May be taken 6 times for credit. 3 hours laboratory. Introduction to ballroom and social dance techniques. Instruction and practice in Swing, Cha-Cha, Waltz, Fox Trot, Rhumba and Tango dances. [FHGE: Lifelong Understanding; Transferable: UC/CSU]		
DANC 5	WORLD DANCE	1 Unit
May be taken 6 times for credit. 3 hours laboratory. 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. [FHGE: Lifelong Understanding; Transferable: UC/CSU]		
DANC 6	BEGINNING COUNTRY-WESTERN LINE DANCING	1 Unit
May be taken 6 times for credit. 3 hours laboratory. 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. [FHGE: Lifelong Understanding; Transferable: UC/CSU]		
DANC 7	CHOREOGRAPHY	1 Unit
May be taken 6 times for credit. 3 hours laboratory. Exploration of the basic principles and theories of choreography and composition and the tools for defining the creative process. [FHGE: Lifelong Understanding; Transferable: UC/CSU]		
DANC 8	DANCE PRODUCTION: REHEARSAL & PERFORMANCE	2 Units
May be taken 6 times for credit. 6 hours laboratory. Foothill repertory and touring dance company. Students gain professional- and advance-level technique training in various dance disciplines and work with master guest artists. [FHGE: Non-GE; Transferable: UC/CSU]		
DANC 9	MOVEMENT FOR ACTORS	2 Units
May be taken 6 times for credit. 4 hours lecture-laboratory. 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. [FHGE: Non-GE; Transferable: UC/CSU]		
DANC 10	TOPICS IN DANCE HISTORY	4 Units
Not Repeatable. 4 hours lecture. A comprehensive study of the evolution of theatrical dance in the western world from the 16 th 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. [FHGE: Humanities; Transferable: UC/CSU]		
DANC 11	FOOTHILL REPERTORY DANCE COMPANY	3 Units
Advisory: Not open to students with credit in PHED 34G. 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. [FHGE: Non-GE; Transferable: 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. Not Repeatable. 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. [FHGE: Non-GE; Transferable: CSU]		
D A 51A	INTRODUCTION TO CHAIRSIDE DENTAL ASSISTING	5.5 Units
Prerequisite: Admission to Dental Assisting Program. Not Repeatable. 2.5 hours lecture, 1 hour seminar, 6 hours laboratory, 11 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. [FHGE: Non-GE; Transferable: CSU]		
D A 51B	INTERMEDIATE CLINICAL DENTAL ASSISTING	2 Units
Prerequisite: Admission to Dental Assisting Program. Not Repeatable. 1.5 hours lecture, 2 hours laboratory. Periodontal and oral surgery procedures, equipment, and instruments. Registered Dental Assistant orthodontic function. Fabrication of bleaching splints. [FHGE: Non-GE; Transferable: CSU]		
D A 51C	ADVANCED DENTAL ASSISTING SKILLS	3 Units
Prerequisite: Admission to Dental Assisting Program. Not Repeatable. 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. [FHGE: Non-GE; Transferable: CSU]		
D A 53A	INTRODUCTION TO RADIOGRAPHY I	3 Units
Prerequisite: Admission to Dental Assisting Program. Not Repeatable. 2 hours lecture, 3 hours laboratory. Introduction to dental radiology for dental assisting students. Emphasis on production, characteristics, biologic effects, radiation safety and protection. Introduction to intraoral long-cone radiographic techniques, film processing and mounting. This course is intended for students enrolled in the dental assisting program. [FHGE: Non-GE; Transferable: CSU]		
D A 53B	DENTAL RADIOGRAPHY II	2 Units
Prerequisite: Admission to Dental Assisting Program. Not Repeatable. 1 hour lecture, 3 hours laboratory. Intraoral radiographic technique continued with evaluation of film quality, recognition of landmarks, and film errors. Bitewing radiography is emphasized. Introduction to digital panoramic radiographs and identification of radiolucent and radiopaque landmarks of the head and neck. Intended for students enrolled in the dental assisting program. [FHGE: Non-GE; Transferable: CSU]		

<p>D A 53C DENTAL RADIOGRAPHY III 1 Unit Prerequisite: Admission to Dental Assisting Program. Not Repeatable. 3 hours laboratory. Continuation of DA 53B. Intraoral technique and film evaluation skills practiced on mannequins and performed on patients. Emphasis on endodontic, occlusal distal-oblique and digital radiographs. Intended for dental assisting students. [FHGE: Non-GE; Transferable: CSU]</p>	<p>D A 62B DENTAL SCIENCES II 2 Units Prerequisite: Admission to Dental Assisting Program. Not Repeatable. 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. [FHGE: Non-GE; Transferable: CSU]</p>
<p>D A 56 DENTAL HEALTH EDUCATION 1 Unit Prerequisite: Admission to Dental Assisting Program. Not Repeatable. 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 for caries risk. [FHGE: Non-GE; Transferable: CSU]</p>	<p>D A 62C DENTAL SCIENCES III 2 Units Prerequisite: Admission to Dental Assisting Program. Not Repeatable. 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. [FHGE: Non-GE; Transferable: CSU]</p>
<p>D A 57 OFFICE EMERGENCY PROCEDURES 2 Units Prerequisite: Admission to Dental Assisting Program. Not Repeatable. 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. [FHGE: Non-GE; Transferable: CSU]</p>	<p>D A 63 SPECIAL PATIENT POPULATIONS 1 Unit Prerequisite: Admission to Dental Assisting Program. Not Repeatable. 1 hour lecture. Discussion and development of techniques and/or equipment needed to meet the needs of special patient populations. [FHGE: Non-GE; Transferable: CSU]</p>
<p>D A 58 SPECIALITY PRACTICE PROCEDURES 1 Unit Advisory: Admission to the Dental Assisting Program. Not Repeatable. 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. Intended for students admitted into the dental assisting program. [FHGE: Non-GE; Transferable: CSU]</p>	<p>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. [FHGE: Non-GE; Transferable: CSU]</p>
<p>D A 60A DENTAL OFFICE BUSINESS PRACTICES I 2 Units Prerequisite: Admission to Dental Assisting Program. Not Repeatable. 2 hours lecture. Introduction to appointment management, telephone techniques, communication and patient management, dental and office records management; written correspondence, treatment plan and case presentation; accounts receivables. [FHGE: Non-GE; Transferable: CSU]</p>	<p>D A 73 DENTAL ASSISTING SUPERVISED CLINIC 2 Units Prerequisite: D A 51A. Not Repeatable. 17 hours clinic. 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. [FHGE: Non-GE; Transferable: CSU]</p>
<p>D A 60B DENTAL OFFICE BUSINESS PRACTICES II 3 Units Prerequisite: Admission to Dental Assisting Program. Not Repeatable. 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 procedures, collection of accounts, treatment plans and case presentations, dental insurance procedures. Instruction in both manual and computer applications. [FHGE: Non-GE; Transferable: CSU]</p>	<p>D A 74 DENTAL ASSISTING CLINICAL PRACTICE 2 Units Prerequisite: Admission to Dental Assisting Program. Not Repeatable. 17 hours clinic. Continuation of techniques introduced in DA 51A, 51B and 73; supervised clinical experience in externship environment; advanced and specialty chair side procedures. [FHGE: Non-GE; Transferable: CSU]</p>
<p>D A 62A DENTAL SCIENCES I 2 Units Prerequisite: Admission to Dental Assisting Program. Not Repeatable. 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. [FHGE: Non-GE; Transferable: CSU]</p>	<p>D A 85 RDA REVIEW 2 Units Prerequisites: D A 51A and 51B. May be taken 3 times for credit. 1 hour lecture, 3 hours laboratory, 2 hours field study. Fabrication, seating, temporary cementation and removal of excess cement for temporary crowns. 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. [FHGE: Non-GE; Transferable: CSU]</p>

D A 88 PIT & FISSURE SEALANTS 1.5 Units
Prerequisite: Admission to Dental Assisting Program.
Not Repeatable.
 .92 hour lecture, .83 hour laboratory, 1.25 hours clinic
 Theory and practice for placement of sealants by the Registered Dental Assistant to prevent decay in the pit and fissure areas of the dentition. [FHGE: Non-GE; Transferable: CSU]

D H 55A FUNDAMENTALS OF PATHOLOGY I 2 Units
Prerequisite: D H 52B.
Not Repeatable.
 2 hours lecture.
 Introduction to general pathology and specific pathologic processes, repair, healing, and regressive changes. Social significance of pathology. [FHGE: Non-GE; Transferable: CSU]

DENTAL HYGIENE

Biological & Health Sciences (650) 949-7538
www.foothill.edu/bio/programs/dentalh/

D H 50 ORIENTATION TO DENTAL HYGIENE 1 Unit
Prerequisite: Admission to Dental Hygiene Program.
Not Repeatable.
 1.5 hour 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 homework, observation in clinic, and instrumentation on typodonts. Strategies & skills for student success in the dental hygiene program. This course is intended for students enrolled in the dental hygiene program. [FHGE: Non-GE; Transferable: CSU]

D H 55B FUNDAMENTALS OF PATHOLOGY II 2 Units
Prerequisite: DH 55A.
Not Repeatable.
 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. [FHGE: Non-GE; Transferable: CSU]

D H 56 APPLIED PHARMACOLOGY IN DENTISTRY 2 Units
Prerequisites: BIOL 58, D H 61A or licensed dental hygienist or dentist.
Not Repeatable.
 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. [FHGE: Non-GE; Transferable: CSU]

D H 52A ORAL BIOLOGY I 3 Units
Prerequisite: Admission to Dental Hygiene Program.
Not Repeatable.
 2 hours lecture, 2 hours lecture-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. [FHGE: Non-GE; Transferable: CSU]

D H 57A PERIODONTICS 2 Units
Prerequisite: D H 52B.
Not Repeatable.
 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. [FHGE: Non-GE; Transferable: CSU]

D H 52B ORAL BIOLOGY II 3 Units
Prerequisite: D H 52A.
Not Repeatable.
 2 hours lecture, 2 hours lecture-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. [FHGE: Non-GE; Transferable: CSU]

D H 57B PERIODONTICS 2 Units
Prerequisite: D H 57A.
Not Repeatable.
 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. [FHGE: Non-GE; Transferable: CSU]

D H 53 ASSESSMENT PROCEDURES IN THE DENTAL HYGIENE PROCESS 4 Units
Prerequisite: Admission to Dental Hygiene Program.
Not Repeatable.
 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). [FHGE: Non-GE; Transferable: CSU]

D H 57C PERIODONTICS 2 Units
Prerequisite: D H 57B.
Not Repeatable.
 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. [FHGE: Non-GE; Transferable: CSU]

D H 54 PRE-CLINICAL DENTAL HYGIENE 4 Units
Prerequisite: Admission to Dental Hygiene Program.
Not Repeatable.
 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. [FHGE: Non-GE; Transferable: CSU]

D H 59 SURVEY OF DENTISTRY 1 Unit
Prerequisite: Admission to the Dental Hygiene Program.
Not Repeatable.
 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. [FHGE: Non-GE; Transferable: CSU]

D H 60A	INTRODUCTION TO DENTAL RADIOGRAPHY I	2 Units	care on patients in a clinical setting. Students apply knowledge, critical thinking, and basic clinical skills acquired in previous completed dental hygiene courses. Students will also learn about dental hygiene care for diverse patient populations and management of patients with special needs. Enrollment limited to students enrolled in the dental hygiene program. [FHGE: Non-GE; Transferable: CSU]
Prerequisite: Admission to the Dental Hygiene Program. Not Repeatable. 2 hours lecture. Introduction to dental radiology for students enrolled in the dental hygiene program. Component parts, functions, operations of the dental x-ray unit and radiation safety is emphasized. Relationships between anatomical and radiographic landmarks are analyzed. [FHGE: Non-GE; Transferable: CSU]			
D H 60B	DENTAL RADIOGRAPHY II	1 Unit	
Prerequisites: D H 60A. Not Repeatable. 3 hours laboratory. Introduction to the radiology laboratory intended for the first year student enrolled in the dental hygiene program. Emphasis on dental x-ray techniques, film development and mounting. Radiation safety protection is practiced for all laboratory procedures. All films will be viewed for self-critique and instructor evaluation. [FHGE: Non-GE; Transferable: CSU]			
D H 60C	DENTAL RADIOGRAPHY III	.5 Unit	
Prerequisites: D H 60B. Not Repeatable. 1 hour lecture-laboratory. Radiology course for second year dental hygiene students. Emphasis on correlating oral diseases to radiologic findings. Includes distal-oblique projections and application of the S.L.O.B. rule. Introduction to digital panoramic radiology. This course intended for students in the dental hygiene program. [FHGE: Non-GE; Transferable: CSU]			
D H 60D	DENTAL RADIOGRAPHY IV	.5 Unit	
Prerequisites: D H 60C. Not Repeatable. 1 hour lecture-laboratory. Radiology course intended for second year students enrolled in the dental hygiene program. Emphasis on the understanding of radiographic interpretation of periodontal and dental diseases. Continued application of digital radiography with use of sensors and scanners. [FHGE: Non-GE; Transferable: CSU]			
D H 60E	DENTAL RADIOGRAPHY V	.5 Unit	
Prerequisites: D H 60D. Not Repeatable. 1 hour lecture-laboratory. Final course in a series on dental radiography for students enrolled in the dental hygiene program. Increase in patient requirements and the attainment 90% scores or higher on film evaluations. Emphasis is on time efficiency, technique accuracy and patient management. Increased skill in film exposures, processing and the interpretation of dental diseases. [FHGE: Non-GE; Transferable: CSU]			
D H 61A	CLINICAL TECHNIQUE	6 Units	
Prerequisites: D H 52A and 54. Not Repeatable. 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. This course is intended for the dental hygiene student. [FHGE: Non-GE; Transferable: CSU]			
D H 61B	INTRODUCTION TO CLINIC	4 Units	
Prerequisites: Completion of D H 61A and 52B with grade of "C" or higher; possession of a current CPR certificate. Not Repeatable. 3 hours lecture, 6 hours clinic, 3 hours field experience. An introduction to clinical dental hygiene practice. An emphasis on assessing, planning, and implementing comprehensive dental hygiene			
D H 62A	CLINICAL DENTAL HYGIENE I	2.5 Units	
Prerequisite: D H 61B. Not Repeatable. 1 hour lecture, 9 hours clinic, 1 hour field experience. Continuation of dental hygiene clinical practice. Assessing, planning, implementing, and evaluating dental hygiene care on patients in a clinical setting. Development of progress in clinical performance with each successive academic period. Intended for students enrolled in the Dental Hygiene Program. [FHGE: Non-GE; Transferable: CSU]			
D H 62B	CLINICAL DENTAL HYGIENE II	4 Units	
Prerequisites: D H 57A and 61A. Not Repeatable. 1 hour lecture, 16 hours clinic, 3 hours field experience. Continuation of clinical dental hygiene practice providing comprehensive dental hygiene care in a clinic setting on patients. Intended for students enrolled in the Dental Hygiene Program. [FHGE: Non-GE; Transferable: CSU]			
D H 62C	CLINICAL DENTAL HYGIENE III	4 Units	
Prerequisite: D H 62B. Not Repeatable. 1 hour lecture, 16 hours clinic, 3 hours field experience. Continuation of clinical dental hygiene practice providing comprehensive dental hygiene care in a clinic setting on patients. Intended for students enrolled in the Dental Hygiene Program. [FHGE: Non-GE; Transferable: CSU]			
D H 62D	CLINICAL DENTAL HYGIENE IV	4 Units	
Prerequisite: D H 62C. Not Repeatable. 1 hour lecture, 16 hours clinic, 3 hours field experience. Continuation of clinical dental hygiene practice providing comprehensive dental hygiene care in a clinic setting on patients. Development of progress in clinical performance with each successive academic period. Intended for students enrolled in the Dental Hygiene Program. [FHGE: Non-GE; Transferable: CSU]			
D H 63C	COMMUNITY DENTAL HEALTH I	3 Units	
Prerequisite: Admissions to the Dental Hygiene Program. Not Repeatable. 2 hours lecture. Introduction to community dental health problems and disparities that exist in health care. The science of epidemiology, research and writing skills, and biostatistics. An analysis of current dental health issues and initial development of a community dental health program. Evaluation of scientific literature will be developed. This course is intended for students enrolled in the dental hygiene program. [FHGE: Non-GE; Transferable: CSU]			
D H 63D	COMMUNITY DENTAL HEALTH II	3 Units	
Prerequisite: DH 63C. Not Repeatable. 2 hours lecture, 1.5 hours lecture-laboratory. Continuation of D H 63C. Emphasis 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. Evidence-based decision making will be applied to the dental public health setting. This course is intended for students enrolled in the dental hygiene program. [FHGE: Non-GE; Transferable: CSU]			

<p>D H 64 ETHICS, LAW & DENTAL OFFICE PRACTICES 2 Units</p> <p>Not Repeatable. 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. [FHGE: Non-GE; Transferable: CSU]</p>	<p>D H 73 DENTAL HEALTH EDUCATION 2 Units</p> <p>Prerequisites: Admission to the Dental Hygiene Program. Advisory: PSYC 1. Not Repeatable. 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. [FHGE: Non-GE; Transferable: CSU]</p>
<p>D H 65 CLINICAL LOCAL ANESTHESIA 2.5 Units</p> <p>Prerequisites: D H 54, or completion of a ADA approved dental hygiene program ; possession of a current CPR certificate. Not Repeatable. 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. [FHGE: Non-GE; Transferable: CSU]</p>	<p>D H 75A CLINICAL DENTAL HYGIENE THEORY I 1.5 Units</p> <p>Prerequisites: Admission to the Dental Hygiene Program. Not Repeatable. 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. Intended for students enrolled in the Dental Hygiene Program. [FHGE: Non-GE; Transferable: CSU]</p>
<p>D H 66 SOFT TISSUE CURETTAGE 1 Unit</p> <p>Prerequisite: D H 65. Not Repeatable. 1 hour lecture. Training for the dental hygiene student or dental hygienist in performing soft tissue curettage. [FHGE: Non-GE; Transferable: CSU]</p>	<p>D H 75B CLINICAL DENTAL HYGIENE THEORY II 1.5 Units</p> <p>Prerequisites: Admission to the Dental Hygiene Program. Not Repeatable. 1 hour lecture, 3 hours laboratory. Discussion and demonstration of supplemental dental hygiene functions, advanced instrumentation techniques, chemotherapeutics, advanced local anesthesia techniques, air polishing, implants in dentistry, orthodontic therapy 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. Intended for student enrolled in the Dental Hygiene Program. [FHGE: Non-GE; Transferable: CSU]</p>
<p>D H 67 NITROUS OXIDE/OXYGEN ANALGESIA 1 Unit</p> <p>Not Repeatable. 2 hours lecture-laboratory. This course is the study of nitrous oxide/oxygen analgesia used in the dental practice. Emphasis will be placed on understanding the mechanism of sedation, risks and benefits associated with nitrous oxide sedation, how to administer and properly document the use of nitrous oxide. Intended for students in the dental hygiene program. [FHGE: Non-GE; Transferable: CSU]</p>	<p>D H 75C CLINICAL DENTAL HYGIENE THEORY III 1.5 Units</p> <p>Prerequisites: Admission to the Dental Hygiene Program. Not Repeatable. 1 hour lecture, 3 hours laboratory. This course is designed to aid the student in identifying an appropriate patient for clinical state and/or regional board licensing exam for Dental Hygienists and in identifying and anticipating methods which will influence a successful board experience. Supportive course to reinforce and amplify the knowledge and skills needed to perform dental hygiene procedures. Intended for students enrolled in the Dental Hygiene Program. [FHGE: Non-GE; Transferable: CSU]</p>
<p>D H 68A RADIOGRAPHIC INTERPRETATION 2 Units</p> <p>Prerequisites: D H 60A and 60B. Not Repeatable. 2 hours lecture. Interpretation of intraoral and panoramic radiographs. Emphasis on normal, atypical and pathological structures. Identification of dental anomalies, dental materials and the interpretation of disease. Analysis of the progression of dental caries, periodontal disease, and periapical lesions. Course is intended for students enrolled in the dental hygiene program. [FHGE: Non-GE; Transferable: CSU]</p>	<p>D H 86 CALIFORNIA STATE BOARD PREPARATION .5 Unit</p> <p>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. [FHGE: Non-GE; Transferable: CSU]</p>
<p>D H 71 OFFICE EMERGENCY PROCEDURES 2 Units</p> <p>Prerequisite: Admission to Dental Hygiene Program. Not Repeatable. 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. [FHGE: Non-GE; Transferable: CSU]</p>	<p>D H 200L INTRODUCTION TO DENTAL HYGIENE 1 Unit</p> <p>Not Repeatable. 2 hours lecture-laboratory. Introduction to the profession of dental hygiene. Emphasis on dental terminology, communication skills, licensure requirements and clinical and lab techniques related to dental hygiene clinical practice. Discussion of the requirements for the Dental Hygiene Program. [FHGE: Non-GE; Transferable: Not transferable]</p>
<p>D H 72 DENTAL MATERIALS 3 Units</p> <p>Prerequisite: Admission to Dental Hygiene Program. Not Repeatable. 2 hours lecture, 3 hours laboratory. Properties of dental materials, characteristics and manipulation of dental materials and the equipment used in the manipulation of these materials with an emphasis on dental hygiene care. Course also covers caries risk assessment, hazardous waste management and MSDS. [FHGE: Non-GE; Transferable: CSU]</p>	

D H 290 DIRECTED STUDY .5 Unit
 D H 290X 1 Unit
 D H 290Y 1.5 Units
 D H 290Z 2 Units

Formerly: D H 190

Prerequisites: Admission to the Dental Hygiene Program.

Advisory: Pass/No Pass.

May be taken 6 times for credit.

1.5 hours laboratory for each .5 unit of credit.

Enrichment activities to facilitate competency in dental hygiene skills. May include off-campus clinical rotations, community service, patient case study seminars, and attendance at professional dental hygiene meetings. Enrollment is limited to 6 times within the D H 290 group. [FHGE: Non-GE; Transferable: Not transferable]

DIAGNOSTIC MEDICAL SONOGRAPHY

Biological & Health Sciences (650) 949-7538
www.foothill.edu/bio/programs/ultra/

DMS 50A DIAGNOSTIC MEDICAL SONOGRAPHY PRINCIPLES & PROTOCOLS 4 Units

Prerequisite: Admission to Diagnostic Medical Sonography Program. **Not Repeatable.**

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. [FHGE: Non-GE; Transferable: CSU]

DMS 50B SONOGRAPHY & PATIENT CARE 2 Units

Prerequisite: Admission to Diagnostic Medical Sonography Program. **Not Repeatable.**

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. [FHGE: Non-GE; Transferable: CSU]

DMS 51A SECTIONAL ANATOMY 3 Units

Prerequisites: BIOL 40A, B, C or equivalent; some background with medical terminology or equivalent or health care professional or student of allied health occupation.

Not Repeatable.

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. [FHGE: Non-GE; Transferable: CSU]

DMS 52A PHYSICAL PRINCIPLES OF DIAGNOSTIC MEDICAL SONOGRAPHY I 2 Units

Prerequisite: Admission to the Diagnostic Medical Sonography Program. **Not Repeatable.**

2 hours lecture.

Principles of diagnostic ultrasound, wave characteristics, artifacts, propagation, acoustic variables, and review of mathematical skills. [FHGE: Non-GE; Transferable: CSU]

DMS 52B PHYSICAL PRINCIPLES OF DIAGNOSTIC MEDICAL SONOGRAPHY II 2 Units

Prerequisite: DMS 52A.

Not Repeatable.

2 hours lecture.

A continuation of Physical Principles A with an emphasis on transducers, pulsed waves, real-time imaging and image display. [FHGE: Non-GE; Transferable: CSU]

DMS 52C PHYSICAL PRINCIPLES OF DIAGNOSTIC MEDICAL SONOGRAPHY III 2 Units

Prerequisites: DMS 52B.

Not Repeatable.

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. [FHGE: Non-GE; Transferable: CSU]

DMS 53A DIAGNOSTIC MEDICAL SONOGRAPHY I 2 Units

Prerequisite: Admission to the Diagnostic Medical Sonography Program. **Not Repeatable.**

2 hours lecture, 1 hour 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. [FHGE: Non-GE; Transferable: CSU]

DMS 53B DIAGNOSTIC MEDICAL SONOGRAPHY II 2 Units

Prerequisite: Admission to the Diagnostic Medical Sonography Program. **Not Repeatable.**

2 hours lecture, 1 hour 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. [FHGE: Non-GE; Transferable: CSU]

DMS 53C DIAGNOSTIC MEDICAL SONOGRAPHY III 2 Units

Prerequisite: Admission to the Diagnostic Medical Sonography Program. **Not Repeatable.**

2 hours lecture, 1 hour 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. [FHGE: Non-GE; Transferable: CSU]

DMS 54A GYNECOLOGY 2 Units

Prerequisite: Admission to the Diagnostic Medical Sonography Program. **Not Repeatable.**

2 hours lecture, .5 hour 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. [FHGE: Non-GE; Transferable: CSU]

DMS 54B GYNECOLOGY & OBSTETRICS 2 Units

Prerequisite: Admission to the Diagnostic Medical Sonography Program. **Not Repeatable.**

2 hours lecture, .5 hour 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. [FHGE: Non-GE; Transferable: CSU]

DMS 55A OBSTETRICS I 2 Units
Prerequisite: Admission to the Diagnostic Medical Sonography Program.
Not Repeatable.
2 hours lecture, .5 hour internet 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. [FHGE: Non-GE; Transferable: CSU]

DMS 55B OBSTETRICS II 2 Units
Prerequisite: Admission to the Diagnostic Medical Sonography Program.
Not Repeatable.
2 hours lecture, .5 hour 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. [FHGE: Non-GE; Transferable: CSU]

DMS 56A VASCULAR SONOGRAPHY 3 Units
Prerequisite: Admission to Diagnostic Medical Sonography Program.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: 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. [FHGE: Non-GE; Transferable: CSU]

DMS 60A CRITIQUE & PATHOLOGY I 2 Units
Prerequisite: Admission to the Diagnostic Medical Sonography Program.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: CSU]

DMS 60B CRITIQUE & PATHOLOGY II 1 Unit
Prerequisite: Admission to Diagnostic Medical Sonography Program.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: CSU]

DMS 60C CRITIQUE & PATHOLOGY III 1 Unit
Prerequisite: Admission to the Diagnostic Medical Sonography Program.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: CSU]

DMS 60D CRITIQUE & PATHOLOGY IV 1 Unit
Prerequisite: Admission to the Diagnostic Medical Sonography Program.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: CSU]

DMS 60E CRITIQUE & PATHOLOGY V 1 Unit
Prerequisite: Admission to the Diagnostic Medical Sonography Program.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: CSU]

DMS 60F CRITIQUE & PATHOLOGY VI 1 Unit
Prerequisite: Admission to the Diagnostic Medical Sonography Program.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: CSU]

DMS 70A CLINICAL PRECEPTORSHIP I 8.5 Units
Prerequisites: DMS 72A.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: CSU]

DMS 70B CLINICAL PRECEPTORSHIP II 8 Units
Prerequisite: DMS 70A.
Not Repeatable.
32 hours laboratory, 1 hour skills, 1 hour case research & presentation.
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. [FHGE: Non-GE; Transferable: CSU]

DMS 70C CLINICAL PRECEPTORSHIP III 8.5 Units
Prerequisite: DMS 70B.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: CSU]

DMS 70D CLINICAL PRECEPTORSHIP IV 8.5 Units
Prerequisite: DMS 70C.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: CSU]

DMS 70E CLINICAL PRECEPTORSHIP V 8.5 Units
Prerequisite: DMS 70D.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: CSU]

DMS 72A DIAGNOSTIC MEDICAL SONOGRAPHY PROCEDURES & APPLICATIONS 8 Units
Prerequisite: Admission to Diagnostic Medical Sonography Program.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: CSU]

DMS 72E DIAGNOSTIC MEDICAL SONOGRAPHY PROCEDURES & APPLICATIONS 2 Units
Prerequisite: Admission to Diagnostic Medical Sonography Program.
Not Repeatable.
1 hour lecture, 3 hours laboratory.
 Advanced proficiency levels toward image acquisition, implementing technical quality, interpretation and case analysis with an emphasis on the advanced practice sonographer. Will demonstrate skills through hands-on participation in a controlled lab setting with both simulation and live scanning exercises and demonstration of instructional techniques. [FHGE: Non-GE; Transferable: CSU]

DMS 80A ADVANCED SONOGRAPHIC PRINCIPLES 3 Units
Prerequisites: Admission to the Diagnostic Medical Sonography Program; completion of all prior didactic and clinical practicum courses required in the Diagnostic Medical Sonography Program.
Not Repeatable.
3 hours lecture, 3 internet skills.
 Continuation of all courses as well as new developments with advanced analysis of current sonographic practice. Student presentation and critique of neoplastic cases. Information necessary for completion and participation of national registry examination. [FHGE: Non-GE; Transferable: CSU]

DMS 290 DIRECTED STUDY .5 Unit
DMS 290X 1 Unit
DMS 290Y 1.5 Units
DMS 290Z 2 Units
Formerly: DMS 190
Non-degree applicable credit course.
Advisory: Pass/No Pass
May be taken 6 times for credit.
.5 hour lecture, 1.5 hours laboratory.
 For students who desire or require additional help in attaining comprehension and competency in learning skills. Enrollment is limited to 6 times within the DMS 290 group. [FHGE: Non-GE; Transferable: Not transferable]

ECONOMICS

Business & Social Sciences

(650) 949-7322
www.foothill.edu/bss/

ECON 1A PRINCIPLES OF MACROECONOMICS 5 Units
Advisory: Successfully completed MATH 105; eligibility for ENGL 1A or ESLL 26.
Not Repeatable.
5 hours lecture.
 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. [FHGE: Social & Behavioral Sciences; Transferable: UC/CSU]

ECON 1B PRINCIPLES OF MICROECONOMICS 5 Units
Advisory: Eligibility for ENGL 1A or ESLL 26.
Not Repeatable.
5 hours lecture.
 Micro analysis of economic life. Allocation of resources. Consumer behavior. Pricing and output decisions. Distribution of wealth and income. Nature and characteristics of business enterprises. International trade. Comparative economic systems. ECON 1A and ECON 1B may be taken in either order. [FHGE: Social & Behavioral Sciences; Transferable: UC/CSU]

ECON 9 POLITICAL ECONOMY 4 Units
Advisory: Not open to students with credit in POLI 9 or POLI 9H; Eligibility for ENGL 1A or ESLL 26 recommended.
Not Repeatable.
4 hours lecture.
 Analysis of the contending theoretical formulations of International Political Economy (IPE) emphasizing the interconnection between economics and politics in the broad context of a global economy and the formulation of national public policy. Economic and political policy issues of current national and international significance are emphasized. [FHGE: Social & Behavioral Sciences; Transferable: UC/CSU]

ECON 18 CONTEMPORARY ECONOMIC ISSUES 4 Units
Not Repeatable.
4 hour lecture.
 This course stresses the application of economic theory to contemporary issues with particular emphasis on the role of government and public policy. Economic models and reasoning will be employed to understand causes and possible solutions to problems such as environmental degradation, financial bubbles and crises, income inequality, health care provision, and effectiveness of aid to developing countries. Students will be exposed not only to the issues but to a unique manner in which to frame the discussion. This exposure will assist students in their future economic and non-economic coursework as well as in becoming well-informed citizens with critical-thinking capabilities. [FHGE: Non-GE; Transferable: UC/CSU]

ECON 25 INTRODUCTION TO THE GLOBAL ECONOMY 4 Units
Advisory: ECON 1A.
Not Repeatable.
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. [FHGE: Social & Behavioral Sciences; Transferable: UC/CSU]

ECON 34H HONORS INSTITUTE SEMINAR IN ECONOMICS 1 Unit
Formerly: ECON 34
Prerequisite: Honors Institute participant.
Advisory: Not open to students with credit in ECON 34.
Not Repeatable.
1 hour lecture.
 A seminar in directed readings, discussions and projects in economics. Specific topics to be determined by the instructor. [FHGE: Non-GE; Transferable: CSU]

ECON 35 DEPARTMENT HONORS PROJECTS IN ECONOMICS 1 Unit

May be taken 6 times for credit.
1 hour lecture.
Seminar in readings, research, critical techniques and practice. Specific topics vary. [FHGE: Non-GE; Transferable: CSU]

ECON 36 SPECIAL PROJECTS IN ECONOMICS 1 Unit
ECON 36X 2 Units
ECON 36Y 3 Units
ECON 36Z 4 Units

May be taken 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. Enrollment is limited to 6 times within the ECON 36 group. [FHGE: Non-GE; Transferable: CSU]

EDUCATION

Business & Social Sciences (650) 949-7322
www.foothill.edu/bss/

EDUC 50 PRINCIPLES OF EDUCATION: THE TEACHING CHALLENGE 4 Units

Not Repeatable.
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. [FHGE: Non-GE; Transferable: 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.
May be taken 3 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. Enrollment is limited to 6 times within the ECON 301 group. [FHGE: Non-GE; Transferable: Not transferable]

EMERGENCY MEDICAL TECHNICIAN

Biological & Health Sciences (650) 949-6955
www.foothill.edu/bio/programs/emt/

EMT 303 EMERGENCY MEDICAL TECHNICIAN: BASIC CONTINUING EDUCATION 1.5 Units

Prerequisites: 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. [FHGE: Non-GE; Transferable: Not transferable]

EMT 304 EMERGENCY MEDICAL TECHNICIAN: BASIC PART A 3 Units

Prerequisite: HLTH 55 or First Responder Course or equivalent work experience as determined by the instructor.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: Not transferable]

EMT 305 EMERGENCY MEDICAL TECHNICIAN: BASIC PART B 4 Units

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.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: Not transferable]

EMERGENCY MEDICAL TECHNICIAN - PARAMEDIC

Biological & Health Sciences (650) 949-6955
www.foothill.edu/bio/programs/paramed/

EMTP 60A MOBILE INTENSIVE CARE PARAMEDIC PROGRAM: COGNITIVE & AFFECTIVE IA 11 Units

Prerequisite: Admission to the Paramedic Program.
Advisory: Not open to students with credit in EMTP 100A.
Corequisite: EMTP 60B.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: CSU]

EMTP 60B MOBILE INTENSIVE CARE PARAMEDIC PROGRAM: COGNITIVE, PSYCHOMOTOR & AFFECTIVE IB 8.5 Units

Prerequisite: Admission to the Paramedic Program.
Corequisite: EMTP 60A.
Not Repeatable.
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, dual lumen airways; advanced cardiac life support ambulance 911 call

simulations and case studies; synchronized cardioversion; transcutaneous pacing; defibrillation; cardiovascular/chest pain emergency 911 call simulations; end tidal carbon dioxide monitoring; capnography; 12 lead ECG interpretation. [FHGE: Non-GE; Transferable: CSU]

EMTP 61A MOBILE INTENSIVE CARE 11 Units
PARAMEDIC PROGRAM: COGNITIVE & AFFECTIVE IIA

Prerequisites: EMTP 60A and 60B.
Advisory: Not open to students with credit in EMTP 100B.
Corequisite: EMTP 61B and 63A.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: CSU]

EMTP 61B MOBILE INTENSIVE CARE 8.5 Units
PARAMEDIC PROGRAM: COGNITIVE, AFFECTIVE & PSYCHOMOTOR IIB

Prerequisites: EMTP 60A and 60B.
Advisory: Not open to students with credit in EMTP 100B.
Corequisite: EMTP 61A and 63A.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: CSU]

EMTP 62A MOBILE INTENSIVE CARE 11 Units
PARAMEDIC PROGRAM: COGNITIVE & AFFECTIVE IIIA

Prerequisites: EMTP 60A, 60B, 61A, and 61B.
Advisory: Not open to students with credit in EMTP 100C.
Corequisite: EMTP 62B.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: CSU]

EMTP 62B MOBILE INTENSIVE CARE 8.5 Units
PARAMEDIC PROGRAM: COGNITIVE, AFFECTIVE & PSYCHOMOTOR IIIB

Prerequisites: EMTP 60A, 60B, 61A, and 61B.
Corequisite: EMTP 62A.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: CSU]

EMTP 63A MOBILE INTENSIVE CARE 3 Units
PARAMEDIC PROGRAM: HOSPITAL SPECIALTY ROTATIONS

Prerequisites: 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. [FHGE: Non-GE; Transferable: CSU]

EMTP 63B MOBILE INTENSIVE CARE 5 Units
PARAMEDIC PROGRAM: HOSPITAL EMERGENCY DEPARTMENT ROTATIONS

Prerequisites: EMTP 60A, 60B, 61A, 61B, 62A, and 62B.
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. [FHGE: Non-GE; Transferable: CSU]

EMTP 64A MOBILE INTENSIVE CARE 9.5 Units
PARAMEDIC PROGRAM: AMBULANCE FIELD INTERNSHIP

Prerequisites: EMTP 60A, 60B, 61A, 62B, 63A and 63B.
Advisory: Not open to students with credit in EMTP 103A.
May be taken 4 times for credit.
1.5 hours 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. [FHGE: Non-GE; Transferable: CSU]

EMTP 64B MOBILE INTENSIVE CARE 9.5 Units
PARAMEDIC PROGRAM: AMBULANCE FIELD INTERNSHIP

Prerequisites: EMTP 60A, 60B, 61A, 62A, 62B, 63A, 63B and 64A.
Advisory: Not open to students with credit in EMTP 103B.
May be taken 4 times for credit.
1.5 hours 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. [FHGE: Non-GE; Transferable: CSU]

EMTP 64C MOBILE INTENSIVE CARE 9.5 Units
PARAMEDIC PROGRAM: EXTENSION
AMBULANCE FIELD INTERNSHIP

Prerequisites: EMTP 60A, 60B, 61A, 62B, 63A and 63B.
 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. [FHGE: Non-GE; Transferable: CSU]

EMTP 190 DIRECTED STUDY .5 Unit
EMTP 190X 1 Unit
EMTP 190Y 1.5 Units
EMTP 190Z 2 Units

Non-degree applicable credit course.
 Advisory: Pass/No Pass.
 May be taken 6 times for credit.
 .5 hour lecture, 1.5 hour laboratory for each .5 unit of credit.
 For students who desire or require additional help in attaining comprehension and competency in learning skills. Enrollment is limited to 6 times within the EMTP 190 group. [FHGE: Non-GE; Transferable: Not transferable]

ENGINEERING

Physical Sciences, Mathematics & Engineering (650) 949-7259
www.foothill.edu/psme/

ENGR 10 INTRODUCTION TO ENGINEERING 4 Units
Formerly: ENGR 20

Prerequisite: MATH 220; high school Trigonometry and Physics.
 Advisory: ENGL 110 or ESLL 25; not open to students with credit in ENGR 20.
 Not Repeatable.
 3 hours lecture, 3 hours laboratory.
 An introduction to engineering and the engineering professions to include exposure to engineering project development, the use of computer tools, experimentation, data analysis, and presentation. [FHGE: Non-GE; Transferable: UC/CSU]

ENGR 34H HONORS INSTITUTE SEMINAR 1 Unit
IN ENGINEERING

Prerequisite: Honors Institute participant.
 Not Repeatable.
 1 hour lecture.
 A seminar in directed readings, discussions and projects in engineering. Specific topics to be determined by the instructor. [FHGE: Non-GE; Transferable: CSU]

ENGR 35 STATICS 5 Units

Prerequisites: MATH 1B and PHYS 4A.
 Advisory: ENGR 27.
 Not Repeatable.
 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. [FHGE: Non-GE; Transferable: UC/CSU]

ENGR 36 SPECIAL PROJECTS IN ENGINEERING 1 Unit
ENGR 36X & TECHNOLOGY 2 Units
ENGR 36Y 3 Units

Advisory: Previous experience in engineering.
 May be taken 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. Enrollment is limited to 6 times within the ENGR 36 group. [FHGE: Non-GE; Transferable: CSU]

ENGR 37 INTRODUCTION TO 5 Units
CIRCUIT ANALYSIS

Prerequisites: MATH 1B and PHYS 4B.
 Not Repeatable.
 5 hours lecture.
 The analysis of lumped, linear circuits, natural and forced circuit response. [FHGE: Non-GE; Transferable: UC/CSU]

ENGR 37L CIRCUIT ANALYSIS LABORATORY 2 Units

Corequisite: ENGR 37.
 Not Repeatable.
 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. [FHGE: Non-GE; Transferable: UC/CSU]

ENGR 40 INTRODUCTION TO CLEAN 5 Units
ENERGY TECHNOLOGY

Advisory: High school or CHEM 25; ability to do basic engineering calculations, including use of spreadsheets.
 Not Repeatable.
 4 hours lecture, 3 hours laboratory.
 Introduces the technical student to the field of clean energy technology, including modern energy systems and utility infrastructure, fossil fuel and renewable energy power generation, solar photovoltaic (PV) and wind technology, buildings as systems, green and LEED building, smart energy and active distribution (microgrid concept), transportation energy and advanced transportation solutions, and the future of sustainable energy systems. Overview of the energy industry, environmental and economic considerations, and key research and policy areas for clean and sustainable energy solutions. Provides students with a conceptual framework and foundation to proceed to more advanced study, as well as exploring emerging clean energy careers. [FHGE: Non-GE; Transferable: Not transferable]

ENGR 45 PROPERTIES OF MATERIALS 5 Units

Prerequisite: CHEM 1B and MATH 1C.
 Corequisite: Completion of, or concurrent enrollment in PHYS 4B.
 Not Repeatable.
 4 hours lecture, 1 hour lecture-laboratory, 2 hours laboratory.
 Properties of engineering materials related to basic structure; applications to the selection and use of engineering materials. [FHGE: Non-GE; Transferable: UC/CSU]

ENGR 49 ENGINEERING PROFESSION 1 Unit

Not Repeatable.
 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. [FHGE: Non-GE; Transferable: 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.

Not Repeatable.

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 A.A./A.S. degree and the university-transfer general education requirement in English reading and written composition. [FHGE: English; Transferable: 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.

Not Repeatable.

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 A.A./A.S. degree and the university-transfer general education requirement in English reading and written composition.

The honors section offers rigorous preparation in analytic reading and writing skills for students intending to transfer to a four-year college or university. Course provides opportunity to engage contemporary social and ethical issues through small group discussion, a structured sequence of papers requiring higher-level thinking tasks, and collaborative projects. Emphasis is placed on multiple drafts and substantive revision to produce articulate writing appropriate to academic disciplines. Research paper is required. [FHGE: English; Transferable: 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 1BH.

Not Repeatable.

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. [FHGE: Communication & Analytical Thinking; Transferable: 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.

Not Repeatable.

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.

The 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. [FHGE: Communication & Analytical Thinking; Transferable: 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.

Not Repeatable.

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. [FHGE: Non-GE; Transferable: 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.

Not Repeatable.

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 Quarters.

The honors section is intensive in content, involving both writing 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 contemporaneous writing. Course expands and enhances the student's ability to write with fluency, effectiveness, and intellectual rigor. [FHGE: Non-GE; Transferable: UC/CSU]

ENGL 3 TECHNICAL WRITING 5 Units

Advisory: Eligibility for ENGL 1A recommended.

Not Repeatable.

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. [FHGE: Non-GE; Transferable: CSU]

ENGL 5 GAY & LESBIAN LITERATURE 4 Units

Advisory: Eligibility for ENGL 1A recommended; not open to students with credit in ENGL 5H.

Not Repeatable.

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. [FHGE: Humanities; Transferable: UC/CSU]

ENGL 5H HONORS GAY & LESBIAN LITERATURE 4 Units

Prerequisite: Honors Institute participant.
Advisory: Eligibility for ENGL 1A recommended; not open to students with credit in ENGL 5.
Not Repeatable.
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 sophisticated scholarship through extensive 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. [FHGE: Humanities; Transferable: UC/CSU]

ENGL 7 NATIVE AMERICAN LITERATURE 4 Units

Advisory: Eligibility for ENGL 1A recommended; not open to students with credit in ENGL 7H.
Not Repeatable.
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). [FHGE: Humanities; Transferable: UC/CSU]

ENGL 7H HONORS NATIVE AMERICAN LITERATURE 4 Units

Prerequisite: Honors Institute participant.
Advisory: Eligibility for ENGL 1A recommended; not open to students with credit in ENGL 7.
Not Repeatable.
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, research essays, and outside enrichment opportunities. The honors course offers motivated students an enriching and rigorous environment by means of a learner-centered pedagogy, student-generated discussions, self-directed yet supervised projects, and the emphasis and application of analysis, synthesis, and evaluation. Offered Winter Quarters (rotated with ENGL 40). [FHGE: Humanities; Transferable: UC/CSU]

ENGL 8 CHILDREN'S LITERATURE 4 Units

Advisory: Eligibility for ENGL 1A recommended.
Not Repeatable.
4 hours lecture.

A survey of children's literature from many periods and cultures, including classics, picture books, folktales, fairy tales, biography, poetry, fantasy and fiction. Emphasis on the ideas, didactic and sociological, reflecting relationships among cultures in America included in books usually read by children. Special emphasis on books that explore the cross-cultural influences of our shared oral tradition and folklore as well as the issues arising from a diverse mix of cultures in the U.S. Offered Fall and Spring Quarters. [FHGE: United States Cultures & Communities, Humanities; Transferable: UC/CSU]

ENGL 11 INTRODUCTION TO POETRY 4 Units

Prerequisite: Eligibility for ENGL 1A.
Advisory: Not open to students with credit in ENGL 11H.
Not Repeatable.
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. [FHGE: Humanities; Transferable: UC/CSU]

ENGL 11H HONORS INTRODUCTION TO POETRY 4 Units

Prerequisites: Eligibility for ENGL 1A; Honors Institute participant.
Advisory: Not open to students with credit in ENGL 11.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: UC/CSU]

ENGL 12 AFRICAN AMERICAN LITERATURE 4 Units

Advisory: Eligibility for ENGL 1A recommended.
Not Repeatable.
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. [FHGE: United States Cultures & Communities, Humanities; Transferable: UC/CSU]

ENGL 14 INTRODUCTION TO CONTEMPORARY FICTION 4 Units

Advisory: Eligibility for ENGL 1A recommended.
Not Repeatable.
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. [FHGE: Humanities; Transferable: UC/CSU]

<p>ENGL 17 INTRODUCTION TO SHAKESPEARE 4 Units Prerequisite: Eligibility for ENGL 1A. Not Repeatable. 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. [FHGE: Humanities; Transferable: UC/CSU]</p>	<p>ENGL 40 ASIAN AMERICAN LITERATURE 4 Units Advisory: Eligibility for ENGL 1A; not open to students with credit in ENGL 40H. Not Repeatable. 4 hours lecture. Introduction to Asian American literature. Readings in 20th Century works, with an emphasis on three relevant themes: problems of identity as they relate to class, gender, mixed heritages, and sexuality; politics and the history of Asian American activism and resistance; and diversity of cultures within the Asian American community. Offered Winter Quarters (rotated with ENGL 7). [FHGE: United States Cultures & Communities, Humanities; Transferable: UC/CSU]</p>
<p>ENGL 22 WOMEN WRITERS 4 Units Advisory: Eligibility for ENGL 1A recommended. Not Repeatable. 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. [FHGE: Humanities; Transferable: UC/CSU]</p>	<p>ENGL 40H HONORS ASIAN AMERICAN LITERATURE 4 Units Prerequisite: Honors Institute Participant Advisory: Eligibility for ENGL 1A; not open to students with credit in ENGL 40. Not Repeatable. 4 hours lecture. Introduction to Asian American literature. Readings in twentieth-century works, with an emphasis on three relevant themes: problems of identity as they relate to class, gender, mixed heritages, and sexuality; politics and the history of Asian American activism and resistance; and diversity of cultures within the Asian American community. Honors work challenges students to a greater sophistication of scholarship through extensive 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 Winter Quarters (rotated with ENGL 7). [FHGE: United States Cultures & Communities, Humanities; Transferable: UC/CSU]</p>
<p>ENGL 31 LATINO/A LITERATURE 4 Units Advisory: Eligibility for ENGL 1A. Not Repeatable. 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). [FHGE: United States Cultures & Communities, Humanities; Transferable: UC/CSU]</p>	<p>ENGL 41 LITERATURE OF MULTICULTURAL AMERICA 4 Units Prerequisite: Eligibility for ENGL 1A. Not Repeatable. 4 hours lecture. An exploration of American identity, focusing on ethnic, cultural, and national affiliations. Analysis of literary works by Native American, European American, African American, Chicano/Latino, and Asian American writers. Readings selected represent a variety of historical periods and literary genres. Emphasis on issues of assimilation, acculturation, and cultural pluralism as expressed through diverse voices. Offered Spring Quarters (rotated with ENGL 31). [FHGE: United States Cultures & Communities, Humanities; Transferable: UC/CSU]</p>
<p>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. [FHGE: Non-GE; Transferable: CSU]</p>	<p>ENGL 42A INTRODUCTION TO DRAMATIC LITERATURE 4 Units Prerequisite: Eligibility for ENGL 1A. Advisory: Not open to students with credit in DRAM 2A or THTR 2A. Not Repeatable. 4 hours lecture. Analysis of representative masterpieces of dramatic literature from Aeschylus through the Renaissance Period and including Asian Theatre. [FHGE: Humanities; Transferable: UC/CSU]</p>
<p>ENGL 35 SEMINARS IN ENGLISH 1 Unit ENGL 35X 2 Units ENGL 35Y 3 Units ENGL 35Z 4 Units Prerequisite: ENGL 1A or ESLL 26. May be taken 6 times for credit. 1 hour lecture for each unit of credit. A small group seminar of advanced literary research and critical techniques. Discussions and individual writing projects under instructor supervision. Specific topics will vary. Cannot be substituted for any department requirements. Enrollment is limited to 6 times within the ENGL 35 group. [FHGE: Non-GE; Transferable: CSU]</p>	<p>ENGL 42B INTRODUCTION TO DRAMATIC LITERATURE 4 Units Prerequisite: Eligibility for ENGL 1A. Advisory: Not open to students with credit in DRAM 2B or THTR 2B. Not Repeatable. 4 hours lecture. Analysis of representative masterpieces of dramatic literature from the Elizabethan Period to the end of the 19th Century. [FHGE: Humanities; Transferable: UC/CSU]</p>
<p>ENGL 36 INDIVIDUAL PROJECTS IN ENGLISH 1 Unit ENGL 36X 2 Units ENGL 36Y 3 Units ENGL 36Z 4 Units Advisory: Eligibility for ENGL 1A. May be taken 6 times for credit. 1 hour lecture for each unit of credit. Individual research on advanced subject area in English. Conferences and individual readings, writing assignments, and/or projects under instructor supervision. Specific topics will vary. Cannot be substituted for any department requirements. Enrollment is limited to 6 times within the ENGL 36 group. [FHGE: Non-GE; Transferable: UC/CSU]</p>	

<p>ENGL 42C INTRODUCTION TO DRAMATIC LITERATURE 4 Units</p> <p>Prerequisite: Eligibility for ENGL 1A. Advisory: Not open to students with credit in DRAM 2C or THTR 2C. Not Repeatable. 4 hours lecture.</p> <p>Analysis of representative masterpieces of dramatic literature from the beginning of the 20th Century to the present. [FHGE: Humanities; Transferable: UC/CSU]</p>	<p>ENGL 46B REASON, REBELLION & ROMANTICISM: ENGLISH LITERATURE FROM 1660–1830s 4 Units</p> <p>Prerequisite: ENGL 1A or ESLL 26. Not Repeatable. 4 hours lecture.</p> <p>A survey of selected canonical literary works and authors beginning with the English Restoration period (Milton, Dryden, etc), the Neoclassical/ Enlightenment period (Swift, Pope, etc.) and the Romantic period (Blake, Shelley, etc.) focusing on the emergence and development of literary genres and styles in response to specific historical, sociocultural, and philosophical movements. Offered Winter Quarters. [FHGE: Humanities; Transferable: UC/CSU]</p>
<p>ENGL 42S INTEGRATED COMPOSITION & READING 5 Units</p> <p>Prerequisite: Eligibility based on appropriate assessment information: CPT reading score of 55 (based on Ability to Benefit (ATB) standards); or ENGL 110 placement. Advisory: Open to students previously earning alternate credit in ENGL 100 and/or 110, with faculty recommendation. Not Repeatable. 5 hours lecture.</p> <p>Integrated reading and writing pathway that scaffolds instruction in freshman composition outcomes over two quarters, ENGL 42S and ENGL 42T respectively. Over this 2 quarter stretch, students read substantive quantities of college-level texts and write a total of 10,000 words, comprised of a minimum of 10 compositions (7 out-of-class and 3 in-class) to practice the techniques of critical reading, critical thinking, and written communication. Reading focused primarily on works of non-fiction prose, including published and student writing, chosen to represent a broad spectrum of opinions and ideas, writing styles, and cultural experiences. ENGL 42S is the first half of ENGL 42S/T.</p> <p>This course is currently under review to satisfy the Foothill College reading and composition requirement for the A.A./A.S. degree and the university-transfer general education requirement in English reading and written composition. Please see a counselor for the latest information. [FHGE: Non-GE; Transferable: CSU]</p>	<p>ENGL 46C WARS & WASTELANDS: ENGLISH LITERATURE FROM THE VICTORIAN PERIOD TO THE PRESENT 4 Units</p> <p>Prerequisite: ENGL 1A or ESLL 26. Not Repeatable. 4 hours lecture.</p> <p>Reading and critical analysis of representative works, emphasizing social and cultural backgrounds, from the Victorian to the Modern Period. Offered Spring Quarters. [FHGE: Humanities; Transferable: UC/CSU]</p>
<p>ENGL 42T INTEGRATED COMPOSITION & READING 5 Units</p> <p>Prerequisite: ENGL 42S. Advisory: Student should enroll with the same instructor as taken for ENGL 42S. Not Repeatable. 5 hours lecture.</p> <p>Integrated reading and writing pathway that scaffolds instruction in freshman composition outcomes over two quarters, ENGL 42S and ENGL 42T respectively. Over this 2 quarter stretch, students read substantive quantities of college-level texts and write a total of 10,000 words, comprised of a minimum of 10 compositions (7 out-of-class and 3 in-class) to practice the techniques of critical reading, critical thinking, and written communication. Reading focused primarily on works of non-fiction prose, including published and student writing, chosen to represent a broad spectrum of opinions and ideas, writing styles, and cultural experiences. ENGL 42T is the second half of ENGL 42S/T.</p> <p>This course is currently under review to satisfy the Foothill College reading and composition requirement for the A.A./A.S. degree and the university-transfer general education requirement in English reading and written composition. Please see a counselor for the latest information. [FHGE: Non-GE; Transferable: CSU]</p>	<p>ENGL 48A THE BIRTH OF AMERICAN LITERATURE: 1492–1864 4 Units</p> <p>Prerequisite: ENGL 1A or ESLL 26. Not Repeatable. 4 hours lecture.</p> <p>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 philosophy; gothic short stories; and romantic fiction. Special emphasis on the contributions of diverse cultures in forging American literature and identity. Offered Fall Quarters. [FHGE: United States Cultures & Communities, Humanities; Transferable: UC/CSU]</p>
<p>ENGL 46A MONSTERS, MADNESS & MAYHEM: ENGLISH LITERATURE FROM ITS EARLIEST BEGINNINGS TO MILTON 4 Units</p> <p>Prerequisite: ENGL 1A or ESLL 26. Not Repeatable. 4 hours lecture.</p> <p>A survey of selected literary works beginning with the earliest Old English period (Caedmon's Hymn, Beowulf, etc), Middle English period (the Gawain poet, Chaucer, etc) and the early modern period (Spenser, Shakespeare, Donne, Milton, etc) focusing on the development of literary genres within specific historical and cultural contexts. Offered Fall Quarters. [FHGE: Humanities; Transferable: UC/CSU]</p>	<p>ENGL 48B AMERICAN LITERATURE IN THE GILDED AGE: 1865–1914 4 Units</p> <p>Prerequisite: ENGL 1A or ESLL 26. Not Repeatable. 4 hours lecture.</p> <p>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. Dubois; 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. [FHGE: United States Cultures & Communities, Humanities; Transferable: UC/CSU]</p>
<p>ENGL 48C MODERN AMERICAN LITERATURE: 1914–PRESENT 4 Units</p> <p>Prerequisite: ENGL 1A or ESLL 26. Not Repeatable. 4 hours lecture.</p> <p>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</p>	

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. [FHGE: United States Cultures & Communities, Humanities; Transferable: 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. [FHGE: Non-GE; Transferable: CSU]

ENGL 110 INTRODUCTION TO COLLEGE WRITING 5 Units

Prerequisites: Eligibility based on assessment or successful completion of ENGL 100.
Advisory: Not open to students with credit in ENGL 108.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: Not transferable]

ENGL 190 DIRECTED STUDY .5 Unit
ENGL 190X 1 Unit

Non-degree applicable credit course.
Advisory: Pass/No Pass.
May be taken 6 times for credit.

1 hour lecture-laboratory for each half-unit of credit.
For students who desire or require additional help in attaining comprehension and competency in learning skills; non-transferable course. Enrollment is limited to 6 times within the ENGL 190 group. [FHGE: Non-GE; Transferable: Not transferable]

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. [FHGE: Non-GE; Transferable: Not transferable]

ENGL 209 INTRODUCTION TO COLLEGE READING 5 Units

Formerly: ENGL 100
Non-degree applicable credit course.
Advisory: Not open to students with credit in ENGL 100 or 108.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: Not transferable]

ENGL 215 ALTERNATE CREDIT WRITING SKILLS 5 Units

Non-degree applicable credit course.
Corequisite: ENGL 110.
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. [FHGE: Non-GE; Transferable: Not transferable]

ENGLISH FOR SECOND LANGUAGE LEARNERS

Language Arts (650) 949-7250

ESLL 25 COMPOSITION & READING 5 Units

Formerly: ESL 25
Prerequisites: 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 and ESLL 246 and/or 247 are all strongly recommended; not open to students with credit in ESL 25.

Not Repeatable.
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. Does not fulfill the composition requirements for the A.A. degree. [FHGE: Non-GE; Transferable: UC/CSU]

ESLL 26 ADVANCED COMPOSITION & READING 5 Units

Formerly: ESL 26
Prerequisites: 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 ESL 26.

Corequisite: Completion of, or concurrent enrollment in ESLL 235.
Not Repeatable.
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. Fulfills the composition requirement for the A.A. degree. [FHGE: English; Transferable: 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.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: Not transferable]

ESLL 200B FOUNDATIONS IN ENGLISH AS A SECOND LANGUAGE II 8 Units

Formerly: ESL 200B

Non-degree applicable basic skills course.

Prerequisite: ESLL 200A.

Advisory: Not open to students with credit in ESLL 200B.

Not Repeatable.

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. [FHGE: Non-GE; Transferable: Not transferable]

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 ESLL 210A.

Not Repeatable.

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 help learners advance in their development of grammar and vocabulary through listening, speaking, reading and writing. [FHGE: Non-GE; Transferable: Not transferable]

ESLL 210B FOUNDATIONS IN ENGLISH AS A SECOND LANGUAGE IV 8 Units

Formerly: ESL 210B

Non-degree applicable basic skills course.

Prerequisite: ESLL 210A.

Advisory: Not open to students with credit in ESLL 210B.

Not Repeatable.

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 help learners advance in their development of grammar and vocabulary through listening, speaking, reading and writing. [FHGE: Non-GE; Transferable: Not transferable]

ESLL 225 DEVELOPING LISTENING/SPEAKING SKILLS 5 Units

Formerly: ESL 155

Non-degree applicable credit course.

Prerequisite: Appropriate placement score or ESLL 210B.

Advisory: Not open to students with credit in ESL 155.

Not Repeatable.

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. [FHGE: Non-GE; Transferable: Not transferable]

ESLL 226 HIGH-INTERMEDIATE GRAMMAR 5 Units

Formerly: ESL 156

Non-degree applicable credit course.

Prerequisite: Appropriate placement test score or ESLL 210A.

Advisory: Concurrent enrollment in ESLL 227; not open to students with credit in ESL 156.

Not Repeatable.

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. [FHGE: Non-GE; Transferable: Not transferable]

ESLL 227 HIGH-INTERMEDIATE READING SKILLS 5 Units

Formerly: ESL 157

Non-degree applicable credit course.

Prerequisite: Appropriate placement test score or 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.

Not Repeatable.

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. [FHGE: Non-GE; Transferable: Not transferable]

ESLL 228 DEVELOPING LANGUAGE SKILLS FOR INTERNATIONAL STUDENTS 10 Units

Formerly: ESL 158

Non-degree applicable basic skills course.

Prerequisites: 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.

Not Repeatable.

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 language skills. [FHGE: Non-GE; Transferable: Not transferable]

ESLL 235 LISTENING/SPEAKING FOR ACADEMIC PURPOSES 5 Units

Formerly: ESL 165

Non-degree applicable credit course.

Prerequisite: Appropriate placement test score or ESLL 225.

Advisory: Successful completion of ESLL 226 and ESLL 227 strongly recommended; designed for students whose native language is not English; not open to students with credit in ESL 165.

Not Repeatable.

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. [FHGE: Non-GE; Transferable: Not transferable]

ESLL 236 ADVANCED GRAMMAR 5 Units

Formerly: ESL 166

Non-degree applicable credit course.

Prerequisites: Appropriate placement test score or ESLL 226 and ESLL 227.

Advisory: Concurrent enrollment in ESLL 237; designed for students whose native language is not English; not open to students with credit in ESL 166.

Not Repeatable.

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. [FHGE: Non-GE; Transferable: Not transferable]

<p>ESLL 237 BASIC COMPOSITION SKILLS 5 Units <i>Formerly: ESL 167</i> Non-degree applicable credit course. Prerequisite: Appropriate placement test score or a grade of "C" or better in ESLL 226 and ESLL 227. 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 or ESLL 236. Not Repeatable. 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. [FHGE: Non-GE; Transferable: Not transferable]</p>	<p>ESLL 261B ALTERNATE CREDIT: FOUNDATIONS IN ENGLISH AS A SECOND LANGUAGE II 8 Units <i>Formerly: ESL 261B</i> 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 200B to receive credit for mastery of some but not all of the outcomes of ESL 200B. Students are required to attend ESL 200B, turn in all work, and participate in the other tasks of the class. [FHGE: Non-GE; Transferable: Not transferable]</p>
<p>ESLL 246 APPLIED GRAMMAR & EDITING SKILLS 3 Units <i>Formerly: ESL 176</i> Non-degree applicable credit course. Prerequisites: Completion of ESLL 236 or an appropriate score on the ESL placement test. Corequisites: Concurrent enrollment in 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. [FHGE: Non-GE; Transferable: Not transferable]</p>	<p>ESLL 262A ALTERNATE CREDIT: FOUNDATIONS IN ENGLISH AS A SECOND LANGUAGE III 8 Units <i>Formerly: ESL 262A</i> Non-degree applicable credit course. May be taken 2 times for credit. 8 hours lecture. This course is designed to allow students enrolled in ESLL 210A to receive credit for mastery of some but not all of the outcomes of ESLL 210A. Students are required to attend ESLL 210A, turn in all work, and participate in the other tasks of the class. [FHGE: Non-GE; Transferable: Not transferable]</p>
<p>ESLL 247 ADVANCED VOCABULARY DEVELOPMENT FOR READING & WRITING 3 Units <i>Formerly: ESL 177</i> Non-degree applicable credit course. Prerequisites: Appropriate placement test score or ESLL 236 and ESLL 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. [FHGE: Non-GE; Transferable: Not transferable]</p>	<p>ESLL 262B ALTERNATE CREDIT: FOUNDATIONS IN ENGLISH AS A SECOND LANGUAGE IV 8 Units <i>Formerly: ESL 262B</i> Non-degree applicable basic skills course. May be taken 2 times for credit. 8 hours lecture. This course is designed to allow students enrolled in ESL 210B to receive credit for mastery of some but not all of the outcomes of ESL 210B. Students are required to attend ESL 210B, turn in all work, and participate in the other tasks of the class. [FHGE: Non-GE; Transferable: Not transferable]</p>
<p>ESLL 248 ADVANCED GRAMMAR REVIEW 3 Units <i>Formerly: ESL 186</i> Non-degree applicable credit course. Prerequisite: ESLL 236 or an appropriate score on the ESL Placement Test. May be taken 3 times for credit. 3 hours lecture. A review of essential grammar and greater in-depth examination of grammatical and lexical structures used in academic and professional writing designed for nonnative speakers of English. This course is delivered entirely online. [Transferable: Not transferable]</p>	<p>ESLL 265 ALTERNATIVE CREDIT: DEVELOPING LISTENING/SPEAKING SKILLS 5 Units <i>Formerly: ESL 255</i> 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. [FHGE: Non-GE; Transferable: Not transferable]</p>
<p>ESLL 261A ALTERNATE CREDIT: FOUNDATIONS IN ENGLISH AS A SECOND LANGUAGE I 8 Units <i>Formerly: ESL 261A</i> Non-degree applicable credit course. May be taken 2 times for credit. 8 hours lecture. This course is designed to allow students enrolled in ESLL 200A to receive credit for mastery of some but not all of the outcomes of ESLL 200A. Students are required to attend ESLL 200A, turn in all work, and participate in the other tasks of the class. [FHGE: Non-GE; Transferable: Not transferable]</p>	<p>ESLL 266 ALTERNATE CREDIT: HIGH-INTERMEDIATE GRAMMAR 5 Units <i>Formerly: ESL 256</i> 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. [FHGE: Non-GE; Transferable: Not transferable]</p>

<p>ESLL 267 ALTERNATE CREDIT: HIGH-INTERMEDIATE READING SKILLS 5 Units</p> <p><i>Formerly: ESL 257</i> 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. [FHGE: Non-GE; Transferable: Not transferable]</p>	<p>ESLL 287 ALTERNATE CREDIT: ADVANCED VOCABULARY DEVELOPMENT FOR READING/WRITING 3 Units</p> <p><i>Formerly: ESL 227</i> 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. [FHGE: Non-GE; Transferable: Not transferable]</p>
<p>ESLL 275 ALTERNATIVE CREDIT: LISTENING/SPEAKING FOR ACADEMIC PURPOSES 5 Units</p> <p><i>Formerly: ESL 265</i> 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. [FHGE: Non-GE; Transferable: Not transferable]</p>	<p>ESLL 288 ALTERNATE CREDIT: ADVANCED GRAMMAR REVIEW 3 Units</p> <p><i>Formerly: ESL 286</i> 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. [FHGE: Non-GE; Transferable: Not transferable]</p>
<p>ESLL 276 ALTERNATIVE CREDIT: ADVANCED GRAMMAR 5 Units</p> <p><i>Formerly: ESL 266</i> 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. [FHGE: Non-GE; Transferable: Not transferable]</p>	<p>ESLL 295 ALTERNATE CREDIT: COMPOSITION & READING 5 Units</p> <p><i>Formerly: ESL 225</i> 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. [FHGE: Non-GE; Transferable: Not transferable]</p>
<p>ESLL 277 ALTERNATIVE CREDIT: BASIC COMPOSITION SKILLS 5 Units</p> <p><i>Formerly: ESL 267</i> 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. [FHGE: Non-GE; Transferable: Not transferable]</p>	<p>ESLL 296 ALTERNATE CREDIT: ADVANCED COMPOSITION & READING 5 Units</p> <p><i>Formerly: ESL 226</i> 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. [FHGE: Non-GE; Transferable: Not transferable]</p>
<p>ESLL 286 ALTERNATIVE CREDIT: APPLIED GRAMMAR & EDITING SKILLS 3 Units</p> <p><i>Formerly: ESL 276</i> 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. [FHGE: Non-GE; Transferable: Not transferable]</p>	

ENVIRONMENTAL HORTICULTURE & DESIGN

Biological & Health Sciences (650) 949-7249
www.foothill.edu/bio/programs/hort/

HORT 10 ENVIRONMENTAL HORTICULTURE & THE URBAN LANDSCAPE 5 Units

Not Repeatable.

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. [FHGE: Natural Sciences; Transferable: UC/CSU]

HORT 50A ORIENTATION TO ENVIRONMENTAL HORTICULTURE 4 Units

Not Repeatable.

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. This course is intended for students in the horticulture program but members of the public and professional community are invited to enroll. [FHGE: Non-GE; Transferable: UC/CSU]

HORT 51A PLANT MATERIALS I 3 Units

Advisory: Completion of, or concurrent enrollment in HORT 50A strongly recommended.

Not Repeatable.

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 broadleaf trees in the landscape. Plants are observed in lab, on campus, and at off-site locations. [FHGE: Non-GE; Transferable: UC/CSU]

HORT 51B PLANT MATERIALS II 3 Units

Advisory: Completion of, or concurrent enrollment in HORT 50A strongly recommended.

Not Repeatable.

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. [FHGE: Non-GE; Transferable: UC/CSU]

HORT 51C PLANT MATERIALS: ANNUALS 2 Units

Advisory: Completion of, or concurrent enrollment in HORT 50A strongly recommended.

Not Repeatable.

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. [FHGE: Non-GE; Transferable: UC/CSU]

HORT 51D PLANT MATERIALS: CALIFORNIA NATIVE PLANTS 2 Units

Advisory: Completion of, or concurrent enrollment in HORT 50A strongly recommended.

Not Repeatable.

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. [FHGE: Non-GE; Transferable: UC/CSU]

HORT 51E PLANT MATERIALS: GROUND COVERS & VINES 2 Units

Advisory: Completion of, or concurrent enrollment in HORT 50A strongly recommended.

Not Repeatable.

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. [FHGE: Non-GE; Transferable: UC/CSU]

HORT 51F PLANT MATERIALS: BAMBOOS & PALMS 2 Units

Advisory: Completion of, or concurrent enrollment in HORT 50A strongly recommended.

Not Repeatable.

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. [FHGE: Non-GE; Transferable: UC/CSU]

HORT 51G PLANT MATERIALS: INTERIOR & TROPICAL PLANTS 2 Units

Advisory: Completion of, or concurrent enrollment in HORT 50A strongly recommended.

Not Repeatable.

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. [FHGE: Non-GE; Transferable: UC/CSU]

HORT 51H PLANT MATERIALS: PERENNIALS & ANNUALS 2 Units

Advisory: Completion of, or concurrent enrollment in HORT 50A strongly recommended.

Not Repeatable.

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. [FHGE: Non-GE; Transferable: UC/CSU]

HORT 51J PLANT MATERIALS: CACTI & SUCCULENTS 2 Units

Advisory: Completion of, or concurrent enrollment in HORT 50A strongly recommended.

Not Repeatable.

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. [FHGE: Non-GE; Transferable: UC/CSU]

HORT 52A HORTICULTURAL PRACTICES: SOILS 3 Units

Advisory: Completion of, or concurrent enrollment in HORT 50A recommended.

Not Repeatable.

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. [FHGE: Non-GE; Transferable: UC/CSU]

HORT 52B HORTICULTURAL PRACTICES: PLANT PROPAGATION 3 Units

Advisory: Completion of, or concurrent enrollment in HORT 50A strongly recommended.

Not Repeatable.

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. [FHGE: Non-GE; Transferable: UC/CSU]

HORT 52C HORTICULTURE PRACTICES: PLANT INSTALLATION & MAINTENANCE 3 Units

Advisory: HORT 50A strongly recommended.

Not Repeatable.

2 hours lecture, 3 hours laboratory.

Horticultural principles and practices for management of plants and gardens. Proper selection and maintenance of trees, shrubs, and ground covers. Fine gardening techniques used by landscape gardeners. Transplanting and planting containerized and boxed plant material. Preparation of planting areas and post-planting care of landscape plants. Techniques for pruning of various species. Operation of equipment and tools used in gardening. [FHGE: Non-GE; Transferable: CSU]

HORT 52E HORTICULTURAL PRACTICES: GREENHOUSE & NURSERY MANAGEMENT 3 Units

Advisory: Completion of, or concurrent enrollment in HORT 50A strongly recommended.

Not Repeatable.

2 hours lecture, 3 hours laboratory.

Commercial greenhouse and nursery management practices as related to the production and sale of plants in California. Emphasis on greenhouse and container nursery operations. Class will focus on organization, management, and production practices used in large and small-scale commercial plant production. Design of facilities and use of technology will be emphasized through use of on-campus facilities and observation of off-site operations. [FHGE: Non-GE; Transferable: CSU]

HORT 52F HORTICULTURAL PRACTICES: INTERIORSCAPING 3 Units

Advisory: Completion of, or concurrent enrollment in HORT 50A strongly recommended.

Not Repeatable.

2 hours lecture, 3 hours laboratory.

Design, installation, and maintenance practices utilized in interior landscapes. Includes the identification, selection, culture, and care of plants suitable for interior use and special events. Identification of approximately 50 tropical plants. Analysis of environmental factors which affect plant health, appearance, and longevity. Container and growing media selection. [FHGE: Non-GE; Transferable: CSU]

HORT 52G HORTICULTURAL PRACTICES: TURFGRASS MANAGEMENT 3 Units

Not Repeatable.

2 hours lecture, 3 hours laboratory.

Turf identification and planting techniques. Turf maintenance and management practices for golf courses, athletic fields, parks, and areas surrounding commercial buildings and private residences. Examination of soils, irrigation, weeds, diseases and pests as they pertain to turfgrass. [FHGE: Non-GE; Transferable: CSU]

HORT 52H HORTICULTURE PRACTICES: INTEGRATED PEST MANAGEMENT 3 Units

Advisory: Completion of, or concurrent enrollment in HORT 50A strongly recommended.

Not Repeatable.

2 hours lecture, 3 hours laboratory.

Problems of and control solutions for diseases, insects, and weeds in landscapes and gardens. Ecologically based Integrated Pest Management (IPM) practices for handling plant pathogens, insect infestations, and unwanted vegetation. Emphasis on identification, life cycles, and symptoms of diseases, insects, and weeds. [FHGE: Non-GE; Transferable: CSU]

HORT 54A LANDSCAPE CONSTRUCTION: GENERAL PRACTICES 4 Units

Not Repeatable.

3 hours lecture, 3 hours laboratory.

General practices of construction as applied to landscape projects. Basic tools and equipment, building materials and hardware, and installation techniques utilized in landscape construction. Focus is on hardscape applications including paving, walls, decks, and related wood structures. Review of safety practices, careers in landscape construction, and contractor licensing. This course is intended for students in the horticulture program but members of the public and professional community are invited to enroll. [FHGE: Non-GE; Transferable: CSU]

HORT 54B LANDSCAPE CONSTRUCTION: TECHNICAL PRACTICES 3 Units

Not Repeatable.

2.5 hours lecture, 1.5 hours laboratory.

Technical aspects of landscape construction projects. Landscape surveying & grading techniques, surface & subsurface hydraulics, landscape drainage systems, erosion control & soil conservation, fences & gates, and building codes. Estimating landscape materials, construction costs, and preparation of project bids and contracts. This course is intended for students in the horticulture program but members of the public and professional community are invited to enroll. [FHGE: Non-GE; Transferable: CSU]

HORT 54C LANDSCAPE CONSTRUCTION: IRRIGATION PRACTICES 3 Units

Not Repeatable.

2.5 hours lecture, 1.5 hours laboratory.

Methods and materials used in the irrigation of ornamental landscapes. Selection of materials and operational theory of irrigation equipment. Installation techniques for sprinkler and drip irrigation systems. Water conservation features and maintenance of irrigation systems. This course is intended for students in the horticulture program but members of the public and professional community are invited to enroll. [FHGE: Non-GE; Transferable: CSU]

HORT 54D LANDSCAPE CONSTRUCTION: APPLIED PRACTICES 2 Units

Advisory: HORT 54A strongly recommended.

May be taken 3 times for credit.

1 hour lecture, 3 hours laboratory.

The practical application of landscape construction practices to actual projects. Emphasis on field work which may include the design and construction of screens, fences, gates, benches, planter boxes, overheads, gazebos, decks, ponds or other specialized projects. Training on motorized equipment, such as tractors and backhoes used in landscape construction. [FHGE: Non-GE; Transferable: CSU]
[May be taken 3 times for credit.]

HORT 55A GREEN INDUSTRY MANAGEMENT: BUSINESS PRACTICES 3 Units

Not Repeatable.

3 hours lecture.

Introductory survey of green industry management and business practices. Geared to people in such fields as landscape construction, nursery management, and landscape design, this course focuses on helping individuals successfully organize, manage, and/or market their agency or small business. The class utilizes both a theoretical and hands-on approach to the application of common business principles. [FHGE: Non-GE; Transferable: CSU]

HORT 55B GREEN INDUSTRY MANAGEMENT: EMPLOYEE PRACTICES 3 Units

Not Repeatable.

3 hours lecture.

Employee management practices including the recruitment, motivation, and development of new employees. Also covered are effective customer service techniques, workplace diversity, the use of employee manuals, identifying and training new and potential managers, development of leadership skills, scheduling, and the role of the supervisor. [FHGE: Non-GE; Transferable: CSU]

<p>HORT 60A LANDSCAPE DESIGN: GRAPHIC COMMUNICATION 4 Units</p> <p>Not Repeatable. 3 hours lecture, 3 hours laboratory. An introductory survey of the basic principles of design communication, landscape graphics, and design process. Graphic mediums and tools, graphic vocabulary, graphic skills, reprographic techniques, plan reading, and presentation skill development. The application of lines, symbols, and lettering to create typical landscape drawings. This course is intended for students in the horticulture program but members of the public and professional community are invited to enroll. [FHGE: Non-GE; Transferable: UC/CSU]</p>	<p>HORT 60G LANDSCAPE DESIGN: INTERMEDIATE COMPUTER APPLICATIONS 3 Units</p> <p>Advisory: HORT 60A and 60E strongly advised; knowledge of computer operation strongly advised. Not Repeatable. 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. [FHGE: Non-GE; Transferable: CSU]</p>
<p>HORT 60B LANDSCAPE DESIGN: THEORY 3 Units</p> <p>Advisory: HORT 60A and/or drafting skills strongly recommended. Not Repeatable. 2 hours lecture, 3 hours laboratory. Principles of landscape design theory. Intermediate studies in and applications of graphic communication, creative problem solving, design theory, and presentation skills. Residential site analysis and landscape design case studies. [FHGE: Non-GE; Transferable: CSU]</p>	<p>HORT 80 ENVIRONMENTAL HORTICULTURE SKILLS 2 Units</p> <p>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. [FHGE: Non-GE; Transferable: CSU]</p>
<p>HORT 60C LANDSCAPE DESIGN: IRRIGATION 3 Units</p> <p>Advisory: HORT 54C strongly recommended. Not Repeatable. 2.5 hours lecture, 1.5 hours laboratory. Principles of irrigation design for ornamental landscapes. Includes history of irrigation, advanced site analysis, irrigation design theory, equipment selection and layout, controller scheduling, long-term maintenance, and water conservation issues. Process of producing irrigation plans, details, and specifications. [FHGE: Non-GE; Transferable: CSU]</p>	<p>HORT 90A CONTAINER PLANTINGS IN THE LANDSCAPE 1 Unit</p> <p>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. This course is intended for students in the horticulture program but members of the public and professional community are invited to enroll. [FHGE: Non-GE; Transferable: CSU]</p>
<p>HORT 60D LANDSCAPE DESIGN: PLANTING 3 Units</p> <p>Advisory: HORT 60A & 60B, or equivalent and HORT 51A, 51B, & 51H strongly recommended. Not Repeatable. 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. [FHGE: Non-GE; Transferable: CSU]</p>	<p>HORT 90C GARDEN PONDS & WATER FEATURES 1 Unit</p> <p>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. [FHGE: Non-GE; Transferable: CSU]</p>
<p>HORT 60E LANDSCAPE DESIGN: COMPUTER APPLICATIONS 3 Units</p> <p>Advisory: HORT 60A and a basic understanding of the operation of computers is strongly recommended. Not Repeatable. 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. [FHGE: Non-GE; Transferable: CSU]</p>	<p>HORT 90E HORTICULTURAL & LANDSCAPE PHOTOGRAPHY 1 Unit</p> <p>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. [FHGE: Non-GE; Transferable: CSU]</p>
<p>HORT 60F LANDSCAPE DESIGN: PROCESS 3 Units</p> <p>Advisory: HORT 60A & 60B. Not Repeatable. 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. [FHGE: Non-GE; Transferable: CSU]</p>	<p>HORT 90F LANDSCAPE DESIGN: BASIC PRINCIPLES 1 Unit</p> <p>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. [FHGE: Non-GE; Transferable: CSU]</p>
<p>HORT 60G LANDSCAPE DESIGN: INTERMEDIATE COMPUTER APPLICATIONS 3 Units</p> <p>Advisory: HORT 60A and 60E strongly advised; knowledge of computer operation strongly advised. Not Repeatable. 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. [FHGE: Non-GE; Transferable: CSU]</p>	<p>HORT 90G LANDSCAPE DESIGN FORUM 1 Unit</p> <p>May be taken 5 times for credit. .75 hour lecture, .5 hour laboratory. Design topics for residential landscapes. Covers current concepts and trends in the landscape design industry through topical presentations, guest speakers, and discussion groups. Explores methods for evaluating successful landscape designs and their implementation. This course is intended for students in the horticulture program but members of the public and professional community are invited to enroll. [FHGE: Non-GE; Transferable: CSU]</p>

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. The effective use of conventional and low-voltage lighting for improving landscape aesthetics and the functional use of outdoor spaces. This course is intended for students in the horticulture program but members of the public and professional community are invited to enroll. [FHGE: Non-GE; Transferable: 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. This course is intended for students in the horticulture program but members of the public and professional community are invited to enroll. [FHGE: Non-GE; Transferable: 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. This course is intended for students in the horticulture program but members of the public and professional community are invited to enroll. [FHGE: Non-GE; Transferable: 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. This course is intended for students in the horticulture program but members of the public and professional community are invited to enroll. [FHGE: Non-GE; Transferable: 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. [FHGE: Non-GE; Transferable: 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. This course is intended for students in the horticulture program but members of the public and professional community are invited to enroll. [FHGE: Non-GE; Transferable: 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. This course is intended for students in the horticulture program but members of the public and professional community are invited to enroll. [FHGE: Non-GE; Transferable: 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. This course is intended for students in the horticulture program but members of the public and professional community are invited to enroll. [FHGE: Non-GE; Transferable: 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. This course is intended for students in the horticulture program but members of the public and professional community are invited to enroll. [FHGE: Non-GE; Transferable: 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. [FHGE: Non-GE; Transferable: 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. [FHGE: Non-GE; Transferable: CSU]

HORT 90V SUSTAINABLE ORGANIC GARDENING 1 Unit
 .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. [FHGE: Non-GE; Transferable: CSU]

HORT 90X WATER CONSERVATION IN LANDSCAPE DESIGN 1 Unit
 May be taken 5 times for credit.
 .75 hour lecture, .5 hour laboratory.
 Applies principles of water conservation to landscape design and construction projects. Landscape designs which incorporate water-conserving principles strive to limit the need for water and strike a balance between softscape and hardscape elements. This course is intended for students in the horticulture program but members of the public and professional community are invited to enroll. [FHGE: Non-GE; Transferable: 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. [FHGE: Non-GE; Transferable: 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. [FHGE: Non-GE; Transferable: CSU]

FASHION MERCHANDISING

Business & Social Sciences (650) 949-7322
www.foothill.edu/bss/

FASH 50 INTRODUCTION TO FASHION MERCHANDISING 4 Units

Not Repeatable.
 4 hours lecture.

Introduction to world of fashion with emphasis on history of fashion, including contemporary trends of fashion, basic concepts of design and fashion merchandising. Distribution and promotion of fashion merchandise, dynamics of fashion merchandising, fashion shows and modeling. [FHGE: Non-GE; Transferable: CSU]

FINE ARTS

Fine Arts & Communication (650) 949-7262
www.foothill.edu/fa/

F A 1 INTRODUCTION TO POPULAR CULTURE 4 Units

Not Repeatable.

4 hours lecture, 1 hour laboratory.

Overview history and critical analysis—of popular culture as a window for understanding American society. Theories and methods of analyzing artifacts of popular culture. Overarching themes: 1) history/social theories of popular culture; 2) popular culture as a product of American multiculturalism; 3) the relationship between a commodity culture and intellect/artistry; 4) philosophical/ethical issues surrounding popular culture. [FHGE: Humanities; Transferable: UC/CSU]

F A 2 POPULAR CULTURE & UNITED STATES HISTORY 4 Units

Not Repeatable.

4 hours lecture, 1 hour laboratory.

Interdisciplinary overview of popular culture as a window for understanding American history and society. Theories and methods of analyzing the artifacts of popular culture. Overarching themes: 1) interaction between American historical events and trends, and popular culture; 2) the interpretation of American history via popular culture media. [FHGE: United States Cultures & Communities; Transferable: UC/CSU]

F A 30 FINE ARTS TOPICS 1 Unit
F A 30X 2 Units
F A 30Y 3 Units
F A 30Z 4 Units

May be taken 6 times for credit.

1 hour lecture for each unit of credit.

A topical introductory course in any fine arts academic discipline or related field. Specific courses and subject matter vary from quarter to quarter. Taught by a faculty member with minimum qualifications in a specific Fine Arts discipline. Enrollment is limited to 6 times within the F A 30 group. [FHGE: Non-GE; Transferable: CSU]

F A 150 FINE ARTS LABORATORY .5 Unit
F A 150X 1 Unit
F A 150Y 1.5 Units
F A 150Z 2 Units

May be taken 6 times for credit.

1.5 hours laboratory for each .5 unit of credit.

Supervised activities in fine arts, for students who desire or require additional help in attaining comprehension and competency in learning skills in a fine arts subject. Supervised by the division dean or designee. Enrollment is limited to 6 times within the F A 150 group. [FHGE: Non-GE; Transferable: Not transferable]

GEOGRAPHY

Business & Social Sciences (650) 949-7322
www.foothill.edu/bss/

GEOG 1 PHYSICAL GEOGRAPHY 5 Units

Advisory: Eligibility for ENGL 1A or ESLL 26; MATH 220.

Not Repeatable.

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. [FHGE: Natural Sciences, Social & Behavioral Sciences; Transferable: UC/CSU]

GEOG 2 HUMAN GEOGRAPHY 4 Units

Advisory: Eligibility for ENGL 1A or ESLL 26.

Not Repeatable.

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. [FHGE: Social & Behavioral Sciences; Transferable: UC/CSU]

GEOG 5 INTRODUCTION TO ECONOMIC GEOGRAPHY 4 Units

Advisory: Eligibility for ENGL 1A or ESLL 26.

Not Repeatable.

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. [FHGE: Social & Behavioral Sciences; Transferable: UC/CSU]

GEOG 9 CALIFORNIA GEOGRAPHY 4 Units

Not Repeatable.

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. [FHGE: Social & Behavioral Sciences; Transferable: UC/CSU]

GEOG 10 WORLD REGIONAL GEOGRAPHY 4 Units

Advisory: Eligibility for ENGL 1A or ESLL 26.

Not Repeatable.

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. [FHGE: Social & Behavioral Sciences; Transferable: UC/CSU]

GEOG 12	INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS (GIS)	4 Units	GEOG 58	REMOTE SENSING & DIGITAL IMAGE PROCESSING	3 Units
<p>Not Repeatable. 3 hours lecture, 3 hours laboratory. Study of Geographic Information Systems (GIS) science and its applications to spatial data management. Assessment of vector and raster systems, scale, resolution, map projection, coordinate systems, Georeferencing and Global Positioning Systems (GPS). Discussion and analysis of uncertainty propagation with a GIS. Modeling with GIS. [FHGE: Non-GE; Transferable: UC/CSU]</p>			<p>Not Repeatable. 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. [FHGE: Non-GE; Transferable: CSU]</p>		
GEOG 34H	HONORS INSTITUTE SEMINAR IN GEOGRAPHY	1 Unit	GEOG 59	CARTOGRAPHY, MAP PRESENTATION & DESIGN	2 Units
<p>Formerly: GEOG 34 Prerequisite: Honors Institute participant. Advisory: Not open to students with credit in GEOG 34. Not Repeatable. 1 hour lecture. A seminar in directed readings, discussions and projects in geography. Specific topics to be determined by the instructor. [FHGE: Non-GE; Transferable: CSU]</p>			<p>Not Repeatable. 1 hour lecture, 3 hours laboratory. Map projections, geodes, coordinate systems. Map composition. Selection of colors and symbols. [FHGE: Non-GE; Transferable: CSU]</p>		
GEOG 35	DEPARTMENT HONORS PROJECTS IN GEOGRAPHY	1 Unit	GEOG 73	DYNAMIC & INTERACTIVE MAPPING	4.5 Units
<p>May be taken 6 times for credit. 1 hour lecture. Seminar in readings, research, critical techniques and practice. Specific topics vary. [FHGE: Non-GE; Transferable: CSU]</p>			<p>Prerequisites: GEOG 12 and 52 or equivalent. Not Repeatable. 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. [FHGE: Non-GE; Transferable: CSU]</p>		
GEOG 36	SPECIAL PROJECTS IN GEOGRAPHY	1 Unit	GEOG 78	GEOGRAPHIC INFORMATION SCIENCE PROJECTS	4.5 Units
GEOG 36X		2 Units	<p>Prerequisite: GEOG 73. Not Repeatable. 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. [FHGE: Non-GE; Transferable: CSU]</p>		
GEOG 36Y		3 Units			
GEOG 36Z		4 Units			
<p>May be taken 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. Enrollment is limited to 6 times within the GEOG 36 group. [FHGE: Non-GE; Transferable: CSU]</p>					
GEOG 52	ADVANCED GEOGRAPHIC INFORMATION SYSTEMS (GIS)	4 Units	GEOG 90A	INTRODUCTION TO GIS FOR K-12 TEACHERS I: FUNDAMENTALS OF GEOGRAPHIC INFORMATION SYSTEMS SCIENCE	1 Unit
<p>Not Repeatable. 3 hours lecture, 3 hours laboratory. Study of Geographic Information Systems (GIS) science and its applications to spatial data management. Data acquisition using GPS, digitizing and scanning techniques. Data management. Editing and verifying. Raster data manipulation and importing. Database management. Advanced queries and database manipulation. [FHGE: Non-GE; Transferable: CSU]</p>			<p>Not Repeatable. 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. [FHGE: Non-GE; Transferable: CSU]</p>		
GEOG 54A	SEMINAR IN SPECIALIZED APPLICATIONS OF GEOGRAPHIC INFORMATION SYSTEMS I	2 Units	GEOG 90B	INTRODUCTION TO GIS FOR K-12 TEACHERS II: UTILIZING SPATIAL DATA & DATA ANALYSIS IN THE CLASSROOM	1 Unit
<p>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. [FHGE: Non-GE; Transferable: CSU]</p>			<p>Not Repeatable. 1 hour lecture. Study of Geographic Information Systems (GIS) science and its applications to spatial data management. Georeferencing and Global Positioning Systems (GPS). Discussion and analysis of uncertainty propagation within a GIS. Applications of quantitative and statistical spatial analytical methods; modeling with GIS in the classroom. Helping students formulate geo-spatial questions. [FHGE: Non-GE; Transferable: CSU]</p>		
GEOG 54B	SEMINAR IN SPECIALIZED APPLICATIONS OF GEOGRAPHIC INFORMATION SYSTEMS II	2 Units	GEOG 90C	INTRODUCTION TO GIS FOR K-12 TEACHERS III: DESIGNING & IMPLEMENTING A GIS	1 Unit
<p>Formerly: GEOG 54 Advisory: Not open to students with credit in GEOG 54. Corequisite: Completion of or concurrent enrollment in GEOG 54A. Not Repeatable. 6 hours laboratory. Students undertake an original GIS project of their choosing under guidance of the instructor. [FHGE: Non-GE; Transferable: CSU]</p>			<p>Not Repeatable. 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. [FHGE: Non-GE; Transferable: CSU]</p>		

GEOG 100A INTRODUCTION TO ARC VIEW GIS .5 Unit
Not Repeatable.
.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. [FHGE: Non-GE; Transferable: Not transferable]

GEOG 100B INTRODUCTION TO GEO MEDIA & GEO MEDIA PRO .5 Unit
Not Repeatable.
.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. [FHGE: Non-GE; Transferable: Not transferable]

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. [FHGE: Non-GE; Transferable: Not transferable]

GEOG 101A INTRODUCTION TO MAPPING & COMPUTERIZED CARTOGRAPHY 1 Unit
Not Repeatable.
1 hour lecture.
 Introduction to map reading and interpretation for practical purposes. Thematic map types and uses, use of maps in the field, and discussion of computerized mapping systems and Geographic Information Systems (GIS). [FHGE: Non-GE; Transferable: Not transferable]

GEOG 101B A PREFACE TO GIS: 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. Includes the application of GIS in a range of disciplines, GIS software and data available, how Global Positioning Systems (GPS) integrate with GIS. Students will be introduced to a variety of free and low cost software and provided with practical exercises. [FHGE: Non-GE; Transferable: Not transferable]

GEOG 101C GLOBAL POSITIONING SYSTEMS (GPS) FUNDAMENTALS 1 Unit
May be taken 2 times for credit.
.5 hour lecture, 1.5 hours laboratory.
 Introduction to the use of Global Positioning Systems in Geotechnology. Satellite and device history, configuration and accuracy. Data collection in the field with GPS units and integration into digital mapping projects. [FHGE: Non-GE; Transferable: Not transferable]

GEOG 101D TECHNOLOGY CAREERS & WORK FORCE PREPARATION 1 Unit
Not Repeatable.
1 hour lecture.
 Job search strategies, resume writing and interview skills for students in technical fields. [FHGE: Non-GE; Transferable: Not transferable]

GERMAN

Language Arts

(650) 949-7131
www.foothill.edu/la/

GERM 8 POST-WORLD WAR II GERMANY 4 Units
Advisory: Eligibility for ENGL 1A; not open to students with credit in POLI 8.
Not Repeatable.
4 hours lecture.
 Exploration of historical, political and cultural developments in Germany 1945 to the present. Perspectives on the construction of a German national identity/identities and historical memory through literature and film. Interdisciplinary approach to analyze the existence of the two German states and the development of German unification. [FHGE: Social & Behavioral Sciences; Transferable: UC/CSU]

GRAPHICS & INTERACTIVE DESIGN

Fine Arts & Communication

(650) 949-7262
www.foothill.edu/graphicdesign/

GID 1 HISTORY OF GRAPHIC DESIGN 4 Units
Advisory: Not open to students with credit in ART 36 or GRDS 36.
Not Repeatable.
4 hours lecture.
 A study of the development of visual communication in art, graphic design, illustration and popular culture. Emphasis on the role, impact and interpretation of images, symbols, and typography used in informative and persuasive media. [FHGE: Humanities; Transferable: UC/CSU]

GID 20 DIGITAL VIDEO PRODUCTION I 4 Units
Advisory: Not open to students with credit in F TV 20, GRDS 20 or VART 20.
Not Repeatable.
3 hours lecture, 2.5 hours lecture-laboratory.
 Basic instruction in concepts, techniques, and strategies of DV video production. Basic camera, lighting and sound recording will be covered through technical workshops. Emphasis on video story telling and creative problem solving. [FHGE: Non-GE; Transferable: UC/CSU]

GID 30 PAPER ARTS I 4 Units
Advisory: Not open to students with credit in ART 30.
May be taken 3 times for credit.
3 hours lecture, 3 hours laboratory
 Introduction to the skills and techniques of the paper arts. Mold and cast hand-made paper from various cultures. Embedded and surface structural and decorative techniques. Construction of basic paper making tools. Exploration of paper as applied to print arts, book arts and graphic design projects. History of papermaking. Emphasis on materials, processes and techniques while exploring form and content. [FHGE: Non-GE; Transferable: CSU]

GID 32 T-SHIRT DESIGN & GARMENT PRINTING 4 Units
May be taken 6 times for credit.
3 hours lecture, 3 hours laboratory.
 Basic instruction in design and printing for wearable art. Students learn hand-drawn and digital skills for image creation and preparation of multi-color artwork for screenprinting on t-shirts, fabrics and wearable substrates. Development of personal visual style while learning business practices of garment printing. [FHGE: Non-GE; Transferable: CSU]

GID 38 PRINT ARTS I 4 Units
Advisory: ART 4A and 5A; not open to students with credit in ART 69 or GRDS 69.
May be taken 3 times for credit.
3 hours lecture, 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. [FHGE: Non-GE; Transferable: UC/CSU]

<p>GID 39 PRINT ARTS II 4 Units Prerequisite: GID 38. May be taken 3 times for credit. 3 hours lecture, 3 hours laboratory. Continuation of GID 38. Multi-color printing and photographic processes for relief, intaglio, screenprinting and lithography. Theory and practice making limited-edition and one-of-a-kind fine art prints. [FHGE: Non-GE; Transferable: UC/CSU]</p>	<p>GID 51 GRAPHIC DESIGN STUDIO II 4 Units Prerequisite: GID 50. Not Repeatable. 3 hours lecture, 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. [FHGE: Non-GE; Transferable: UC/CSU]</p>
<p>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. 2 hours lecture, 2 hours lecture-laboratory, 3 hours laboratory. Introduction to the creative, expressive and experimental possibilities of using digital media to produce fine art prints. Emphasis on image creation, printing technologies and printing techniques. [FHGE: Non-GE; Transferable: UC/CSU]</p>	<p>GID 52 GRAPHIC DESIGN STUDIO III 4 Units Prerequisite: GID 51. Not Repeatable. 3 hours lecture, 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. [FHGE: Non-GE; Transferable: UC/CSU]</p>
<p>GID 42 ETCHING & INTAGLIO PRINTING 4 Units Advisory: Not open to students with credit in ART 37. May be taken 3 times for credit. 3 hours lecture, 3 hours laboratory Beginning techniques in printmaking, including embossing, monoprinting, chine collee, drypoint, softground, line etching, handcoloring, printing and the editioning of plates. [FHGE: Non-GE; Transferable: UC/CSU]</p>	<p>GID 54 TYPOGRAPHY 4 Units Advisory: GID 50 and 74 or proficiency using Illustrator software; not open to students with credit in GRDS 62. Not Repeatable. 3 hours lecture, 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. [FHGE: Non-GE; Transferable: UC/CSU]</p>
<p>GID 44 RELIEF PRINTING 4 Units Advisory: Not open to students with credit in ART 38. May be taken 3 times for credit. 3 hours lecture, 3 hours laboratory Introduction to relief printing processes, exploring the techniques of embossing, linoleum block, and collagraph printing. Theory and practice making images for limited-edition and one-of-a-kind fine art prints. [FHGE: Non-GE; Transferable: UC/CSU]</p>	<p>GID 56 WEB SITE DESIGN 4 Units Advisory: GID 50; proficiency using Photoshop or Illustrator software recommended; not open to students with credit in GRDS 94. Not Repeatable. 3 hours lecture, 3 hours laboratory. Basic instruction using the computer for web site and interface design. Emphasis on interactive media and creative problem solving. [FHGE: Non-GE; Transferable: CSU]</p>
<p>GID 46 SCREENPRINTING 4 Units Advisory: Not open to students with credit in ART 39. May be taken 3 times for credit. 3 hours lecture, 3 hours laboratory Introduction to screen printing processes, exploring the techniques of hand cut stencils, direct drawn stencils and photographic processes. Theory and practice making images for limited-edition and one-of-a-kind fine art prints. [FHGE: Non-GE; Transferable: UC/CSU]</p>	<p>GID 60 CAREERS IN THE VISUAL ARTS 2 Units Advisory: Not open to students with credit in GRDS 50 or VART 50. Not Repeatable. 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. [FHGE: Non-GE; Transferable: CSU]</p>
<p>GID 48 MONOPRINTING 4 Units Advisory: Not open to students with credit in ART 49. May be taken 3 times for credit. 3 hours lecture, 3 hours laboratory. Introduction to monoprinting processes, exploring the techniques of painting, drawing and stencils to make unique prints. Theory and practice making images for one-of-a-kind fine art prints. [FHGE: Non-GE; Transferable: UC/CSU]</p>	<p>GID 61 PORTFOLIO 4 Units Formerly: GRDS 77 Advisory: Not open to students with credit in GRDS 77. May be taken 2 times for credit. 3 hours lecture, 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. [FHGE: Non-GE; Transferable: CSU]</p>
<p>GID 50 GRAPHIC DESIGN STUDIO I 4 Units Formerly: GRDS 53 Advisory: Not open to students with credit in GRDS 53. Not Repeatable. 3 hours lecture, 3 hours laboratory. Introduction to graphic design and visual communication. Projects include composition, typography, image editing and logo design. Design principles are explored through creative projects. Students practice fundamental software skills using Adobe Photoshop, Illustrator, and InDesign to complete the graphic design activities in this course. [FHGE: Non-GE; Transferable: UC/CSU]</p>	

<p>GID 62 SERVICE LEARNING PROJECTS 4 Units <i>Formerly: GRDS 77</i> Advisory: Completion of entry level design and software courses recommended. May be taken 3 times for credit. 3 hours lecture, 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. [FHGE: Non-GE; Transferable: CSU]</p>	<p>GID 80 DIGITAL SOUND, VIDEO & ANIMATION 4 Units Advisory: Not open to students with credit in ART 88, DRAM 86, VART 86, MUS 86 or GRDS 86. Not Repeatable. 3 hours lecture, 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. [FHGE: Non-GE; Transferable: UC/CSU]</p>
<p>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. [FHGE: Non-GE; Transferable: CSU]</p>	<p>GID 84 MOTION GRAPHICS 4 Units Advisory: One of the following: GID 80, MUS 86, VART 86; not open to students with credit in VART 87 or GRDS 87. Not Repeatable. 3 hours lecture, 3 hours laboratory. Basic instruction using the computer for motion graphic design, animation, and composite digital video production. Emphasis on time based media and its application to creative problem solving and communication solutions. [FHGE: Non-GE; Transferable: UC/CSU]</p>
<p>GID 70 GRAPHIC DESIGN DRAWING 4 Units <i>Formerly: GRDS 60</i> May be taken 2 times for credit. 3 hours lecture, 3 hours laboratory. Developing drawing skills for communicating ideas. Learning to simplify complex realistic images to express design concepts rapidly and effectively. [FHGE: Non-GE; Transferable: CSU]</p>	<p>GID 90 BOOK ARTS I 4 Units Advisory: Not open to students with credit in ART 96 or GRDS 96. May be taken 3 times for credit. 3 hours lecture, 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. [FHGE: Non-GE; Transferable: CSU]</p>
<p>GID 71 STORYBOARDING 4 Units Advisory: GID 70; not open to students with credit in GRDS 76. May be taken 4 times for credit. 3 hours lecture, 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. [FHGE: Non-GE; Transferable: CSU]</p>	<p>GID 91 BOOK ARTS II 4 Units Prerequisite: GID 90. May be taken 3 times for credit. 3 hours lecture, 3 hours laboratory. Continuation of GID 90. 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. [FHGE: Non-GE; Transferable: CSU]</p>
<p>GID 72 CARTOONING 4 Units Advisory: Not open to students with credit in GRDS 73A. May be taken 3 times for credit. 3 hours lecture, 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. [FHGE: Non-GE; Transferable: UC/CSU]</p>	<p>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. 3 hours lecture, 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. [FHGE: Non-GE; Transferable: CSU]</p>
<p>GID 74 DIGITAL ART & GRAPHICS 4 Units Advisory: Familiarity with computer operating systems, ART 4A or GID 70; ART 5A; PHOT 1 recommended; not open to students with credit in ART 56, PHOT 75 or GRDS 56. May be taken 3 times for credit. 3 hours lecture, 3 hours laboratory. Introduction to using computers and software for painting, drawing, image processing, photo composites and typography. Emphasis on image making and creative problem solving. [FHGE: Non-GE; Transferable: UC/CSU]</p>	<p>GID 93 LETTERPRESS PROJECTS 4 Units Advisory: Completion of GID 92 or equivalent skill levels. May be taken 6 times for credit. 3 hours lecture, 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. [FHGE: Non-GE; Transferable: CSU]</p>
<p>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 GRDS 90. May be taken 3 times for credit. 3 hours lecture, 3 hours laboratory. Creation of images to communicate ideas. Traditional and digital media. Emphasis on concept development and communication effectiveness. Development of personal visual vocabulary while learning art making techniques and media, reproduction processes and illustration business practice. [FHGE: Non-GE; Transferable: CSU]</p>	<p>GID 94 BOOK ARTS PROFESSIONAL PRACTICES 4 Units May be taken 6 times for credit. 3 hours lecture, 3 hours 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. [FHGE: Non-GE; Transferable: CSU]</p>

GID 95 GRAPHIC ARTS STUDIO PROJECTS 4 Units
 May be taken 6 times for credit.
 3 hours lecture, 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. [FHGE: Non-GE; Transferable: CSU]

HEALTH

Biological & Health Sciences (650) 949-7249
www.foothill.edu/bio/programs/

HLTH 21 HEALTH EDUCATION 3 Units
 Not Repeatable.
 3 hours lecture.
 Development of understanding and attitudes relative to personal, family, and community health needs. Emphasis placed upon epidemiology of disease, nutritional behavior, communicable disease, disease prevention, mental health and substance abuse. [FHGE: Lifelong Understanding; Transferable: UC/CSU]

HLTH 55 EMERGENCY RESPONSE 5 Units
Formerly: HLTH 5
 May be taken 6 times for credit.
 4 hours lecture, 3 hours laboratory.
 Provides the student with the knowledge and skills necessary in an emergency to help sustain life, reduce pain, and minimize the consequences of injury or sudden illness until more advanced medical help can arrive. Upon successful completion of the course students will receive American Red Cross certificates in Emergency Response; CPRPR/AED Professional Rescuer update 2006; Oxygen; BBP; Epi Pen; Asthma Inhaler. This course fulfills the 1998 Department of Transportation criteria as a first responder course. [FHGE: Non-GE; Transferable: CSU]

HISTORY

Business & Social Sciences (650) 949-7322
www.foothill.edu/bss/

HIST 4A HISTORY OF WESTERN CIVILIZATION TO 800 AD 4 Units
 Advisory: Eligibility for ENGL 1A or ESLL 26 recommended.
 Not Repeatable.
 4 hours lecture.
 Survey of the development of Western culture and civilization in the ancient world. From the Neolithic period to the early Middle Ages. [FHGE: Humanities, Social & Behavioral Sciences; Transferable: UC/CSU]

HIST 4B HISTORY OF WESTERN CIVILIZATION: 700-1800 4 Units
 Advisory: Eligibility for ENGL 1A or ESLL 26.
 Not Repeatable.
 4 hours lecture.
 Survey of the development of Western society and culture from the early Middle Ages through the Age of Enlightenment. Emphasis upon the cultural, social, intellectual, and institutional changes that led to the birth of the modern Western culture and its interchange with the peoples of the world's continents. [FHGE: Humanities, Social & Behavioral Sciences; Transferable: UC/CSU]

HIST 4C HISTORY OF WESTERN CIVILIZATION 1789-PRESENT 4 Units
 Advisory: Eligibility for ENGL 1A or ESLL 26 recommended; not open to students with credit in HIST 4CH.
 Not Repeatable.
 4 hours lecture.
 Survey of the development of Western society and culture during the nineteenth and twentieth centuries. Emphasis upon the social, intellectual, and institutional changes that have led to the contemporary

Western world and its interchange with the peoples and institutions of the world's continents. [FHGE: Humanities, Social & Behavioral Sciences; Transferable: 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 with credit in HIST 4C.
 Not Repeatable.
 4 hours lecture.
 Survey of the development of Western society and culture during the nineteenth and twentieth centuries. Emphasis upon the social, intellectual, and institutional changes that have led to the contemporary Western world and its interchange with the peoples and institutions of the world's continents. As an honors course, it is a full thematic seminar with advanced teaching methods focusing on major writing, reading, and research assignments, student class lectures, group discussions and interactions. [FHGE: Humanities, Social & Behavioral Sciences; Transferable: UC/CSU]

HIST 8 HISTORY OF LATIN AMERICA 4 Units
 Advisory: Eligibility for ENGL 1A or ESLL 26.
 Not Repeatable.
 4 hours lecture.
 History of Latin America from Pre-Columbian times to the present. Emphasis upon Native and European contributions to present Latin American culture. Special emphasis on governmental systems and social and economic progress. Includes revolutionary movements and their present status. [FHGE: Social & Behavioral Sciences; Transferable: UC/CSU]

HIST 9 HISTORY OF CONTEMPORARY EUROPE 4 Units
 Advisory: Eligibility for ENGL 1A or ESLL 26; not open to students with credit in HIST 9H.
 Not Repeatable.
 4 hours lecture.
 Twentieth Century Europe. Political social, and cultural developments in recent European history. World War I and the consequences of Versailles, Bolshevik Revolution and rise of Communism, Italian Fascism and German Nazism. The diplomacy of World War II, Cold War, and current developments in Western and Eastern Europe. Global impacts. [FHGE: United States Cultures & Communities, Social & Behavioral Sciences; Transferable: 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 with credit in HIST 9.
 Not Repeatable.
 4 hours lecture.
 Twentieth Century Europe. Political social, and cultural developments in recent European history. World War I and the consequences of Versailles, Bolshevik Revolution and rise of Communism, Italian Fascism and German Nazism. The diplomacy of World War II, Cold War, and current developments in Western and Eastern Europe. Global impacts.
 As an honors course, it is a full thematic seminar with advanced teaching methods focusing on major writing, reading, and research assignments, student class lectures, group discussions and interactions. [FHGE: United States Cultures & Communities, Social & Behavioral Sciences; Transferable: UC/CSU]

HIST 10 HISTORY OF CALIFORNIA: THE MULTICULTURAL STATE 4 Units
 Advisory: Eligibility for ENGL 1A or ESLL 26.
 Not Repeatable.
 4 hours lecture.
 Economic, social, intellectual and political development of multicultural California. Survey of Indian, Spanish and Mexican periods. Analysis of role and issues of ethnic/racial minorities during six major historical periods:

gold rush, railroad era, Great Depression, World War II, turbulent '60s and present era. [FHGE: United States Cultures & Communities, Social & Behavioral Sciences; Transferable: UC/CSU]

HIST 15 HISTORY OF MEXICO 4 Units
Advisory: Eligibility for ENGL 1A or ESLL 26.
Not Repeatable.
4 hours lecture.

Pre-Columbian civilizations, the Spanish conquest, and development of Mexico since independence; evolution of political, economic and social institutions; relationship with the United States. [FHGE: Social & Behavioral Sciences; Transferable: 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.
Not Repeatable.
4 hours lecture.

Chronological and topical survey of Roman history from the founding of Rome to the reign of Constantine. Emphasis upon the political, social, economic development in the Late Republic and Empire. Consideration of literature, art, architecture, texts in translation. [FHGE: Social & Behavioral Sciences; Transferable: 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.
Not Repeatable.
4 hours lecture.

Enhanced comprehensive study of Roman history from the founding of Rome to the reign of Constantine. Emphasis upon the political, social, economic development in the Late Republic and Empire. Consideration of literature, art, architecture, texts in translation. As an honors course, it is a full seminar with advanced teaching methods focusing on major writing, reading, and research assignments, student class lectures, group discussions and interactions. [FHGE: Social & Behavioral Sciences; Transferable: UC/CSU]

HIST 17A HISTORY OF THE UNITED STATES TO 1816 4 Units
Advisory: Eligibility for ENGL 1A or ESLL 26.
Not Repeatable.
4 hours lecture.

American civilization through 1816. Survey of United States history. Political, economic and social development. [FHGE: Social & Behavioral Sciences; Transferable: UC/CSU]

HIST 17B HISTORY OF THE UNITED STATES FROM 1812 TO 1914 4 Units
Advisory: Eligibility for ENGL 1A or ESLL 26.
Not Repeatable.
4 hours lecture.

American civilization from 1812 to 1914. Survey of United States history and its political, economic and social development. [FHGE: Social & Behavioral Sciences; Transferable: UC/CSU]

HIST 17C HISTORY OF THE UNITED STATES FROM 1900 TO THE PRESENT 4 Units
Advisory: Eligibility for ENGL 1A or ESLL 26.
Not Repeatable.
4 hours lecture.

American civilization from 1900 to the present. Survey of United States history and its political, economic and social development. [FHGE: Social & Behavioral Sciences; Transferable: UC/CSU]

HIST 18 INTRODUCTION TO MIDDLE EASTERN CIVILIZATION 4 Units
Advisory: Eligibility for ENGL 1A or ESLL 26.
Not Repeatable.
4 hours lecture.

Civilization of the Middle East. History of the region, concentrating on the 19th and 20th and 21st centuries. European colonization, culture, institutions

and religion. Political, economic, and social development of the area. [FHGE: Social & Behavioral Sciences; Transferable: UC/CSU]

HIST 20 HISTORY OF RUSSIA & THE SOVIET UNION 4 Units
Advisory: Eligibility for ENGL 1A or ESLL 26.
Not Repeatable.
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. [FHGE: Social & Behavioral Sciences; Transferable: UC/CSU]

HIST 34H HONORS INSTITUTE SEMINAR IN HISTORY 1 Unit

Formerly: HIST 34
Prerequisite: Honors Institute participant.
Advisory: Not open to students with credit in HIST 34.
Not Repeatable.
1 hour lecture.

A seminar in directed readings, discussions and projects in history. Specific topics to be determined by the instructor. [FHGE: Non-GE; Transferable: CSU]

HIST 36 SPECIAL PROJECTS IN HISTORY 1 Unit
HIST 36X 2 Units
HIST 36Y 3 Units
HIST 36Z 4 Units
May be taken 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. Enrollment is limited to 6 times within the HIST 36 group. [FHGE: Non-GE; Transferable: CSU]

HUMANITIES

Language Arts (650) 949-7556
www.foothill.edu/la/

HUMN 1A HUMANITIES & THE MODERN EXPERIENCE I 4 Units

Not Repeatable.
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. [FHGE: Humanities; Transferable: UC/CSU]

HUMN 1B HUMANITIES & THE MODERN EXPERIENCE II 4 Units

Not Repeatable.
4 hours lecture.
 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. [FHGE: Humanities; Transferable: UC/CSU]

HUMN 34H HONORS INSTITUTE SEMINAR IN HUMANITIES 1 Unit

Formerly: HUMN 34
Prerequisite: Honors Institute participant.
Advisory: Not open to students with credit in HUMN 34.
Not Repeatable.
1 hour lecture.

A seminar in directed readings, discussions, and projects in humanities. Specific topics to be determined by the instructor. [FHGE: Non-GE; Transferable: CSU]

HUMN 36 SPECIAL PROJECTS IN HUMANITIES 1 Unit
HUMN 36X 2 Units
HUMN 36Y 3 Units
 May be taken 6 times for credit.
 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. Enrollment is limited to 6 times within the HUMN 36 group. [FHGE: Non-GE; Transferable: CSU]

JAPN 6 INTERMEDIATE JAPANESE III 5 Units
Prerequisite: JAPN 5.
Not Repeatable.
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. [FHGE: Humanities; Transferable: UC/CSU]

JAPANESE

Language Arts (650) 949-7043
www.foothill.edu/la/

JAPN 1 ELEMENTARY JAPANESE I 5 Units
Not Repeatable.
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. [FHGE: Humanities; Transferable: UC/CSU]

JAPN 2 ELEMENTARY JAPANESE II 5 Units
Prerequisite: JAPN 1 or 1 year of high school Japanese.
Not Repeatable.
5 hours lecture.
 Further development of material presented in JAPN 1. Oral and written practice in competencies in language functions: vocabulary essential to daily communicative situations, grammar necessary for carrying out functions, signals for carrying out communicative tasks, and cultural skills in specific situations. Distinguishing formal and informal styles. Additional 120 Kanji pronunciation and recognition. Language laboratory practice. [FHGE: Humanities; Transferable: UC/CSU]

JAPN 3 ELEMENTARY JAPANESE III 5 Units
Prerequisite: JAPN 2 or two years of high school Japanese.
Not Repeatable.
5 hours lecture.
 Further development of material presented in JAPN 1 and 2. Oral and written practice in competencies in language functions: vocabulary essential to daily communicative situations, grammar necessary for carrying out various functions, signals for carrying out communicative tasks, and cultural skills in specific situations. Distinguishing formal and informal styles, and using honorifics. Making suppositions. Additional 120 Kanji pronunciation and recognition. Language laboratory practice. [FHGE: Humanities; Transferable: UC/CSU]

JAPN 4 INTERMEDIATE JAPANESE I 5 Units
Prerequisite: JAPN 3 or 3 years of high school Japanese.
Not Repeatable.
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. [FHGE: Humanities; Transferable: UC/CSU]

JAPN 5 INTERMEDIATE JAPANESE II 5 Units
Prerequisite: JAPN 4 or four years of high school Japanese.
Not Repeatable.
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. [FHGE: Humanities; Transferable: 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, such as current news media, formal and informal conversations. Understanding ambiguities, vagaries, and value inherent in the target language. [FHGE: Humanities; Transferable: 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. [FHGE: Humanities; Transferable: 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. [FHGE: Humanities; Transferable: 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. [FHGE: Humanities; Transferable: UC/CSU]

JAPN 25A ADVANCED COMPOSITION & READING I 4 Units

Prerequisite: JAPN 6.
Not Repeatable.
4 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. [FHGE: Humanities; Transferable: UC/CSU]

JAPN 25B ADVANCED COMPOSITION & READING II 4 Units

Prerequisite: JAPN 25A.
Not Repeatable.
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. [FHGE: Humanities; Transferable: UC/CSU]

JAPN 33 INTRODUCTION TO JAPANESE CULTURE 4 Units

Advisory: Concurrent enrollment in JAPN 1, 2, 3 or higher recommended.
Not Repeatable.
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. [FHGE: Humanities; Transferable: UC/CSU]

JAPN 53 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 culture. Development of fluency in the oral/aural language and ability to use appropriate language in business social settings, e.g., words related to respect, humbleness, status, gender, formality. Development of critical thinking skills by comparing viewpoints and values of diverse cultures. Understanding of ambiguities and appreciation of their role in business communication. 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. [FHGE: Non-GE; Transferable: CSU]

JAPN 63 JAPANESE BUSINESS CULTURE & ETIQUETTE 1 Unit

Formerly: JAPN 103
May be taken 6 times for credit.
1 hour lecture.

Introduction to basic Japanese 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 Japanese corporate culture. [FHGE: Non-GE; Transferable: CSU]

JAPN 192 COMMUNITY SERVICE LEARNING FOR JAPANESE 1 Unit

Prerequisite: JAPN 6 or equivalent.
May be taken 6 times for credit.
1 hour lecture.

For students who desire training in experiential learning as community volunteers in Japanese language courses offered at Foothill College. The students enrolled in this course will assist the instructor as in-class Japanese language tutors. [FHGE: Non-GE; Transferable: Not transferable]

JOURNEYMEN

Business & Social Sciences

(650) 949-7142
www.foothill.edu/bss/

JRYM 100 BUILDING TRADES TEACHER DEVELOPMENT 5 Units

Prerequisites: Completion of an Apprenticeship Program and a minimum of two years of experience as a journeyman.
Not Repeatable.
5 hours lecture.

Study and application of how students learn, performance objectives, lesson plans, instruction methods, training aids, and a performance evaluations. [FHGE: Non-GE; Transferable: Not transferable]

JRYM 101A BASIC ELECTRICITY FOR SHEET METAL AIR CONDITIONING SERVICE 4.5 Units

Prerequisites: Admission to Sheet Metal Apprenticeship Program; current employment in the sheet metal industry.
Not Repeatable.
9 hours lecture-laboratory.

Skill development for sheet metal workers to service air conditioning equipment. Special emphasis on the basics of electricity and refrigeration principles. [FHGE: Non-GE; Transferable: Not transferable]

JRYM 101B ADVANCED ELECTRICITY FOR SHEET METAL AIR CONDITIONING SERVICE 4.5 Units

Prerequisites: Admission to Sheet Metal Apprenticeship Program; current employment in the sheet metal industry.
Not Repeatable.
9 hours lecture-laboratory.

Continued development of skills necessary for sheet metal workers to service air conditioning equipment. Special emphasis on the use of basic electrical testing instruments, principles, transformers, relays, contactors and safety around electrical equipment. [FHGE: Non-GE; Transferable: Not transferable]

JRYM 102A BASIC REFRIGERATION FOR SHEET METAL AIR CONDITIONING SERVICE 4.5 Units

Prerequisites: Admission to Sheet Metal Apprenticeship Program; current employment in the sheet metal industry.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: Not transferable]

JRYM 102B ADVANCED REFRIGERATION FOR SHEET METAL AIR CONDITIONING SERVICE 4.5 Units

Prerequisites: Admission to Sheet Metal Apprenticeship Program; current employment in the sheet metal industry.
Not Repeatable.
9 hours lecture-laboratory.

Continued development of refrigeration skills with emphasis on the function of compressors, multiphase electric motors and piping systems. [FHGE: Non-GE; Transferable: Not transferable]

JRYM 103A PROPERTIES OF AIR DISTRIBUTION FOR SHEET METAL AIR CONDITIONING SERVICE 4.5 Units

Prerequisites: Admission to Sheet Metal Apprenticeship Program; current employment in the sheet metal industry.
Not Repeatable.

9 hours lecture-laboratory.

Introduction to the different properties of air distribution with air volumes, pressures, humidity and temperature; basic air balance procedures. [FHGE: Non-GE; Transferable: Not transferable]

JRYM 103B REFRIGERATION THEORY FOR SHEET METAL AIR CONDITIONING SERVICE 4.5 Units

Prerequisites: Admission to Sheet Metal Apprenticeship Program; current employment in the sheet metal industry.
Not Repeatable.

9 hours lecture-laboratory.

Continuing refrigeration theory with emphasis on all the major parts of refrigeration systems. The explanation of the principles and function of the heat pump in a residential application. [FHGE: Non-GE; Transferable: Not transferable]

JRYM 104 SHEET METAL JOURNEY LEVEL UPGRADE 2.5 Units

Prerequisites: Admission to Sheet Metal Apprenticeship Program; current employment in the sheet metal industry.
Not Repeatable.

4.5 hours lecture-laboratory.

Introduction to the latest methods and technology required in the sheet metal industry. Topics will include plastics, layout, plasma (fitting input), fiberglass duct and architectural sheet metal. [FHGE: Non-GE; Transferable: Not transferable]

JRYM 152A HVAC BASIC SYSTEMS FOR SHEET METAL JOURNEYPersons 4.5 Units

Prerequisites: Completion of Sheet Metal Apprenticeship Program; current employment in the sheet metal industry.
Not Repeatable.

9 hours lecture-laboratory.

Development of basic skills necessary for sheet metal workers to service HVAC building systems with special emphasis on pneumatic, electronic, and electric controls. [FHGE: Non-GE; Transferable: Not transferable]

JRYM 153A AIR BALANCE TEST EQUIPMENT & INSTRUMENTS FOR JOURNEYPersons (FIRST YEAR) 2.5 Units

Prerequisites: Completion of Sheet Metal Apprenticeship Program; current employment in the sheet metal industry.
Not Repeatable.

4.5 hours lecture-laboratory.

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. [FHGE: Non-GE; Transferable: Not transferable]

JRYM 153B TEMPERATURE MEASUREMENT INSTRUMENTS & DUCT SYSTEMS FOR JOURNEYPersons 2.5 Units

Prerequisites: Completion of Sheet Metal Apprenticeship Program; current employment in the sheet metal industry.
Not Repeatable.

4.5 hours lecture-laboratory.

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. [FHGE: Non-GE; Transferable: Not transferable]

JRYM 154 RECIPROCATING REFRIGERATION 4.5 Units

Prerequisites: Completion of Sheet Metal Apprenticeship Program; current employment in the sheet metal industry.

Not Repeatable.

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. [FHGE: Non-GE; Transferable: Not transferable]

JRYM 155A BASIC ELECTRICITY FOR SHEET METAL A/C SERVICE 4.5 Units

Prerequisites: Completion of HVAC basic systems; current employment in the sheet metal industry.

Not Repeatable.

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. [FHGE: Non-GE; Transferable: Not transferable]

JRYM 157 HAZARDOUS MATERIALS TRAINING FOR THE TRADES 2 Units

Prerequisites: Two years welding experience verified by employer.
Not Repeatable.

3.33 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. [FHGE: Non-GE; Transferable: Not transferable]

JRYM 158 HAZARDOUS MATERIALS RECERTIFICATION FOR THE TRADES .5 Unit

Prerequisites: Current employment in a construction trade; JRYM 157.
May be taken 6 times for credit.

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. [FHGE: Non-GE; Transferable: Not transferable]

JRYM 165 PRE-APPRENTICE INTRODUCTION TO SHEET METAL 2.5 Units

May be taken 3 times for credit.

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. [FHGE: Non-GE; Transferable: Not transferable]

JRYM 166A MARINE SHEET METAL TRAINING I FOR NON-APPRENTICES 2.5 Units

Prerequisites: Current employment in the sheet metal industry.

Not Repeatable.

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 $\frac{3}{16}$ 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. [FHGE: Non-GE; Transferable: Not transferable]

JRYM 166B MARINE SHEET METAL TRAINING FOR NON-APPRENTICES II 2.5 Units

Prerequisites: Current employment in the sheet metal industry.
Not Repeatable.

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 $\frac{3}{16}$ ths 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. [FHGE: Non-GE; Transferable: Not transferable]

JRYM 168A JOURNEYLEVEL DIGITAL SYSTEMS I 2.5 Units

Prerequisites: Current employment in the sheet metal industry.
Not Repeatable.

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. [FHGE: Non-GE; Transferable: Not transferable]

JRYM 168B JOURNEYLEVEL DIGITAL SYSTEMS II 2.5 Units

Prerequisites: Current employment in the sheet metal industry.
Not Repeatable.

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. [FHGE: Non-GE; Transferable: Not transferable]

JRYM 169A FIELD MEASUREMENT & LAYOUT FOR SHEET METAL JOURNEYMEN I 2.5 Units

Prerequisites: Current employment in the sheet metal industry.
Not Repeatable.

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. [FHGE: Non-GE; Transferable: Not transferable]

JRYM 170A ADVANCED SHEET METAL SERVICE I 4.5 Units

Prerequisites: Current employment in the sheet metal industry.
Not Repeatable.

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. [FHGE: Non-GE; Transferable: Not transferable]

JRYM 170B ADVANCED SHEET METAL SERVICE II 4.5 Units

Prerequisites: Current employment in the sheet metal industry.
Not Repeatable.

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. [FHGE: Non-GE; Transferable: Not transferable]

JRYM 171A SPECIALIZED CAD FOR SHEET METAL JOURNEYPersonS I 2.5 Units

Prerequisites: Completion of recognized sheet metal apprenticeship or current employment as a journeyperson detailer in the sheet metal industry.
Not Repeatable.

4.5 hours lecture-laboratory.

3D duct detailing program with emphasis on electronic coordination. Focuses on file management and drawing protocol with the specialized industry CAD systems. [FHGE: Non-GE; Transferable: Not transferable]

JRYM 171B SPECIALIZED CAD FOR SHEET METAL JOURNEYPersonS II 2.5 Units

Prerequisites: JRYM 171A or current employment as a detailer in the sheet metal industry.

Not Repeatable.

4.5 hours lecture-laboratory.

Continuation of 3D duct detailing program for electronic coordination. Emphasis is on accessing, editing and recovering files with current CAD systems used by the industry. Students will use format standards, tag files and program utilities. [FHGE: Non-GE; Transferable: Not transferable]

JRYM 171C SPECIALIZED CAD FOR SHEET METAL JOURNEYPersonS III 2.5 Units

Prerequisites: JRYM 171B or current employment as a detailer in the sheet metal industry with equivalent training.

Not Repeatable.

4.5 hours lecture-laboratory.

This is the third in a series of courses regarding 3D duct detailing programs with emphasis on electronic coordination. Includes file management and drawing protocol with current CAD systems used by the industry. Students will set up and manage design conflict and coordination drawings. [FHGE: Non-GE; Transferable: Not transferable]

JRYM 171D SPECIALIZED CAD FOR SHEET METAL JOURNEYPersonS IV 2.5 Units

Prerequisites: Completion of JRYM 171A, 171B, 171C or current employment as a detailer in the sheet metal industry with equivalent training.

Not Repeatable.

4.5 hours lecture-laboratory.

This is the fourth of four courses in a series regarding 3D duct detailing programs with emphasis on electronic coordination. It includes practice with current CAD and job coordination software systems used by the industry. Students will set up schedules, change orders and bulletins; develop protocol between detailer and design engineer. [FHGE: Non-GE; Transferable: Not transferable]

JRYM 172A ELECTRICAL SYSTEM OPERATION, CONTROLS & DEVICES FOR JOURNEYPersonS (SECOND YEAR) 2.5 Units

Prerequisites: Completion of JRYM 171A, 171B, 171C or current employment as a detailer in the sheet metal industry.

Not Repeatable.

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. [FHGE: Non-GE; Transferable: Not transferable]

JRYM 172B HVAC TESTING & BALANCING PROCEDURES FOR JOURNEYPersonS (SECOND YEAR) 2.5 Units

Prerequisites: Completion of Sheet Metal Apprenticeship Program; current employment in the sheet metal industry.

Not Repeatable.

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. [FHGE: Non-GE; Transferable: Not transferable]

JRYM 173A AIR DISTRIBUTION & MANUFACTURING SYSTEMS FOR JOURNEYPERSONS (THIRD YEAR) 2.5 Units

Prerequisites: Completion of Sheet Metal Apprenticeship Program; current employment in the sheet metal industry. **Not Repeatable.**

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. [FHGE: Non-GE; Transferable: Not transferable]

JRYM 173B SYSTEMS INSTALLATION & TROUBLESHOOTING FOR JOURNEYPERSONS (THIRD YEAR) 2.5 Units

Prerequisites: Completion of Sheet Metal Apprenticeship Program; current employment in the sheet metal industry. **Not Repeatable.**

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. [FHGE: Non-GE; Transferable: Not transferable]

LANGUAGE ARTS

**Language Arts (650) 949-7250
www.foothill.edu/la/**

L A 36 SPECIAL PROJECTS IN 1 Unit
L A 36X LANGUAGE ARTS 2 Units
L A 36Y 3 Units
L A 36Z 4 Units

May be taken 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. Enrollment is limited to 6 times within the L A 36 group. [FHGE: Non-GE; Transferable: 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. [FHGE: Non-GE; Transferable: CSU]

L A 111 PASS THE TORCH TEAM LEADER TRAINING 1 Unit

Prerequisites: 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. [FHGE: Non-GE; Transferable: Not transferable]

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. [FHGE: Non-GE; Transferable: Not transferable]

LEARNING IN NEW MEDIA CLASSROOMS

**Fine Arts & Communication (650) 949-7498
www.foothill.edu/kci/linc/index.php/**

LINC 50 TECHNOLOGY IN THE K-12 CLASSROOM I 1 Unit

Advisory: Appropriate skills and abilities with computer systems and internet technologies.

May be taken 3 times for credit.

1 hour lecture.

Designed for educators, this hands-on course demonstrates the effective integration of technologies for teaching and learning within any standards based curriculum. Emphasis is given to creating student-centered projects or activities using appropriate educational technologies. Enrollment is limited to three times within the LINC 50, 50A & 50B group. [FHGE: Non-GE; Transferable: CSU]

LINC 50A TECHNOLOGY IN THE K-12 CLASSROOM II .5 Unit

Advisory: Appropriate skills and abilities with computer systems and internet technologies; not open to students with credit in LINC 255S. **Not Repeatable.**

.5 hour lecture.

This course is an introduction to educational technology in the classroom. Designed for educators, this hands-on course demonstrates the effective integration of technologies for teaching and learning with any standards based curriculum. Emphasis is given to creating simple, short duration, student-centered activities using appropriate educational technologies. Enrollment is limited to three times within the LINC 50, 50A & 50B group. [FHGE: Non-GE; Transferable: CSU]

LINC 50B TECHNOLOGY IN THE K-12 CLASSROOM III .5 Unit

Advisory: Appropriate skills and abilities with computer systems and internet technologies; not open to students with credit in LINC 255T. **Not Repeatable.**

.5 hour lecture.

This is an intermediate course in educational technology in the classroom. Designed for educators, this hands-on course demonstrates the effective integration of technologies for teaching and learning with any standards based curriculum. Emphasis is given to creating more complex, multi-part, student-centered activities using appropriate educational technologies. Enrollment is limited to three times within the LINC 50, 50A & 50B group. [FHGE: Non-GE; Transferable: CSU]

LINC 50F INTEGRATING TECHNOLOGY INTO A STANDARDS-BASED CURRICULUM I 2 Units

Advisory: Appropriate skills and abilities with computer systems and internet technologies.

May be taken 3 times for credit.

2 hours lecture.

This course is designed for educators (K-14) and includes hands-on experiences that demonstrate the effective integration of technologies and 21st century skills for teaching and learning with any standards based curriculum. Emphasis is given to developing effective student-centered projects or activities using appropriate educational technologies. [FHGE: Non-GE; Transferable: CSU]

<p>LINC 52 INTEGRATING TECHNOLOGY INTO SCIENCE 1 Unit</p> <p>Advisory: Appropriate skills and abilities with computer systems and Internet technologies. May be taken 5 times for credit. 1 hour lecture.</p> <p>This course is designed for middle and high school science educators to create projects for teaching and learning using educational technology. Develop a curriculum integration plan based on the California Science Content Standards for a student-centered project. [FHGE: Non-GE; Transferable: CSU]</p>	<p>LINC 58B CHOOSING THE BEST MEDIA FOR PROJECTS 2 Units</p> <p>Advisory: Appropriate skills and abilities with computer systems and internet technologies. May be taken 3 times for credit. 2 hours lecture.</p> <p>This course prepares teachers to design student-centered learning projects using technology that will facilitate students deeper learning and developing enduring understanding of academic content. Course content will examine existing uses of new technologies, define 21st Century skills for teachers and students, explore academic content standards, and develop learning experiences for students which cause students to visualize, synthesize, and construct learning. [FHGE: Non-GE; Transferable: CSU]</p>
<p>LINC 53 INTEGRATING TECHNOLOGY INTO MATHEMATICS 1 Unit</p> <p>Advisory: Appropriate skills and abilities with computer systems and internet technologies. May be taken 6 times for credit. 1 hour lecture.</p> <p>This overview course for mathematics educators is designed to (1) promote and encourage the use of technology in mathematics instruction at any level to support and enhance mathematics teaching and learning and (2) to increase the use of technology for visualization and multiple representations of math concepts. Other topics include the assessment of technology enhanced math projects, California Mathematics Content Standards, State approved Mathematics text books, ISTE Technology Standards, California Technology Standards, and the emerging Common Core Standards. Enrollment is limited to six times within the LINC 53 group. [FHGE: Non-GE; Transferable: CSU]</p>	<p>LINC 60K GAME-BASED LEARNING 1 Unit</p> <p>Advisory: Appropriate skills and abilities with computer systems and internet technologies. May be taken 3 times for credit. 1 hour lecture.</p> <p>This course is for educators who want to explore the potential of computer-based and internet games to engage students in science, engineering, and other content learning. Participants will analyze existing games for their educational value and determine how students learn when they create their own educational content games. Participants will design a systematic method of identifying, developing and evaluating a set of planned strategies targeted for attaining content learning goals. [FHGE: Non-GE; Transferable: CSU]</p>
<p>LINC 53B INTEGRATING TECHNOLOGY INTO MATHEMATICS 6–8 .5 Unit</p> <p>Advisory: Appropriate skills and abilities with computer systems and internet technologies. May be taken 6 times for credit. .5 hour lecture.</p> <p>This intermediate course for middle grades (6th - 8th) mathematics educators is designed to (1) promote and encourage the use of technology in mathematics instruction to support and enhance mathematics teaching and learning and (2) to increase the use of technology for visualization and multiple representations of math concepts. Other topics include the assessment of technology enhanced math projects, California Mathematics Content Standards, State approved Mathematics text books, ISTE Technology Standards, California Technology Standards, and the emerging Common Core Standards. Enrollment is limited to six times within the LINC 53 group. [FHGE: Non-GE; Transferable: CSU]</p>	<p>LINC 62 MICROSOFT WORD I 1 Unit</p> <p>Advisory: Appropriate skills and abilities with computer systems and internet technologies. May be taken 6 times for credit. 1 hour lecture,</p> <p>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. Enrollment is limited to six times within the LINC 62 group. [FHGE: Non-GE; Transferable: CSU]</p>
<p>LINC 58 GLOBAL PROJECT-BASED LEARNING 2 Units</p> <p>Advisory: Appropriate skills and abilities with computer systems and internet technologies. May be taken 6 times for credit. 2 hours lecture.</p> <p>This course develops teachers' understanding and competencies in using the strategy of global project-based learning to create powerful, culturally diverse learning environments. Teachers and students connect globally via Internet telecommunications software to work collaboratively on curriculum-based, real-world projects. Participants will create a project that engages students in learning curricular content. [FHGE: Non-GE; Transferable: CSU]</p>	<p>LINC 62A MICROSOFT WORD II .5 Unit</p> <p>Advisory: Familiarity with PC or Mac. May be taken 6 times for credit. .5 hour lecture.</p> <p>This course is an introduction to educational technology in the classroom. 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. Enrollment is limited to six times within the LINC 62 group. [FHGE: Non-GE; Transferable: CSU]</p>
<p>LINC 58A E-PORTFOLIOS 1 Unit</p> <p>Advisory: Appropriate skills and abilities with computer systems and internet technologies. May be taken 5 times for credit. 1 hour lecture.</p> <p>Designed for educators, this course demonstrates how to build an e-portfolio as an authentic assessment tool. Electronic portfolios can be used for student work as well as for teacher professional development. Reflective practice that deepens learning will be presented. Student e-portfolios will be examined and analyzed. Computer tools that enable students to create powerful e-portfolios will be examined. [FHGE: Non-GE; Transferable: CSU]</p>	<p>LINC 63 MICROSOFT EXCEL OVERVIEW 1 Unit</p> <p>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.</p> <p>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. Enrollment is limited to five times within the LINC 63 group. [FHGE: Non-GE; Transferable: CSU]</p>
	<p>LINC 63A MICROSOFT EXCEL I .5 Unit</p> <p>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.</p> <p>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. Enrollment is limited to five times within the LINC 63 group. [FHGE: Non-GE; Transferable: CSU]</p>

LINC 64 MICROSOFT POWERPOINT 1 Unit
Advisory: Familiarity with PC or Mac; basic internet skills.
May be taken 6 times for credit.
1 hour lecture.

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. [FHGE: Non-GE; Transferable: CSU]

LINC 66 INTRODUCTION TO THE INTERNET 1 Unit
Advisory: Appropriate skills and abilities with computer systems and Internet technologies.
May be taken 6 times for credit.
1 hour lecture.

This is a short, overview course that explores the educational, personal, and social benefits of the Internet. Participants will explore current Internet trends, tools, and technologies for information, communication, and collaboration. Enrollment is limited to six times within the LINC 66, 66A & 66B group. [FHGE: Non-GE; Transferable: CSU]

LINC 66A INTRODUCTION TO THE INTERNET I .5 Unit
Advisory: Appropriate skills and abilities with computer systems and Internet technologies.
May be taken 6 times for credit.
.5 hour lecture.

This short course explores the educational, personal, and social benefits of the Internet, focusing on the current trends, tools, and technologies for information, communication, collaboration, and networking potential for educational, business-related or personal use. Enrollment is limited to six times within the LINC 66, 66A & 66B group. [FHGE: Non-GE; Transferable: CSU]

LINC 66B INTRODUCTION TO THE INTERNET II .5 Unit
Advisory: Appropriate skills and abilities with computer systems and Internet technologies.
May be taken 6 times for credit.
.5 hour lecture.

This is an intermediate course that focuses on sophisticated internet search techniques, social networking, collaboration tools, and communication resources. Content of the course explores online systems that enhance education, personal/social, and business goals. Enrollment is limited to six times within the LINC 66, 66A & 66B group. [FHGE: Non-GE; Transferable: CSU]

LINC 66C SEARCHING & RESEARCHING THE INTERNET FOR EDUCATORS 2 Units
Advisory: Appropriate skills and abilities with computer systems and Internet technologies.
May be taken 6 times for credit.
2 hours lecture.

This is an intermediate course for teachers, administrators, and other professionals who use the Internet for personal research and in their work. The course emphasizes using advanced search techniques that incorporate logical reasoning, critical thinking, essential questions, and inquiry-based learning to refine searches, maximize the advantages of different search engines, evaluate web sites for credibility, understand the legitimacy of search results, and use search findings ethically. [FHGE: Non-GE; Transferable: CSU]

LINC 66D PODCASTING 1 Unit
Advisory: Appropriate skills and abilities with computer systems and internet technologies.
May be taken 5 times for credit.
1 hour lecture.

This hands-on course explores the use of podcasts for personal, educational, and professional business use. Content includes explanations, demonstrations and hands-on experience creating podcasts using audio tools and syndication (RSS) hosting options (iPod not necessary). [FHGE: Non-GE; Transferable: CSU]

LINC 66E INTRODUCTION TO BLOGS & WIKIS .5 Unit
Advisory: Appropriate skills and abilities with computer systems and internet technologies.
May be taken 3 times for credit.
.5 hour lecture.

This introductory, hands-on learning class will compare the relative advantages and disadvantages of using blogs and wikis for using a Web site, a group collaboration space, an e-portfolio, social networking space, or information sharing. Emphasis is given to creating a basic blog and wiki site for education, business, or personal applications. [FHGE: Non-GE; Transferable: CSU]

LINC 70 WEB PAGE DESIGN OVERVIEW 1 Unit
Advisory: Appropriate skills and abilities with computer systems and internet technologies.
May be taken 6 times for credit.
1 hour lecture.

This short course is a hands-on overview of how to design and create Web pages using computer based or online authoring tools. Enrollment is limited to six times within the LINC 70 group. [FHGE: Non-GE; Transferable: CSU]

LINC 70A WEB PAGE DESIGN I .5 Unit
Advisory: Appropriate skills and abilities with computer systems and internet technologies.
May be taken 6 times for credit.
.5 hour lecture.

This is an introductory, hands-on, short course on how to design and create Web pages using computer based or online authoring tools for use in education, training, business, or personal contexts. Enrollment is limited to six times within the LINC 70 group. [FHGE: Non-GE; Transferable: CSU]

LINC 70B WEB PAGE DESIGN II 1 Unit
Advisory: Familiarity with PC or Mac; basic internet and email skills.
May be taken 6 times for credit.
1 hour lecture.

This is an intermediate course in educational technology in the classroom. Design and creation of World Wide Web pages. Hands-on experience creating Web pages. Intended for Continuing Education. Enrollment is limited to six times within the LINC 70 group. [FHGE: Non-GE; Transferable: CSU]

LINC 72A ADOBE ACROBAT I 1 Unit
Advisory: Appropriate skills and abilities with computer systems and internet technologies.
May be taken 6 times for credit.
1 hour lecture.

This short course is designed for educators and includes hands-on experiences that integrate the publication of multimedia projects using Acrobat with teaching and learning. Emphasis is given to publishing via Portable Document Format (PDF). Learn to package content in a navigable, searchable format. Create student and project management forms. Create compelling portfolios, add multimedia and read-aloud books that address multiple learning styles. Acrobat provides convenient information organization and access. [FHGE: Non-GE; Transferable: CSU]

LINC 72B ADOBE INDESIGN OVERVIEW 1 Unit
Advisory: Appropriate skills and abilities with computer systems and internet technologies.
May be taken 6 times for credit.
1 hour lecture.

This short course is designed for anyone interested in print or Web-based publishing. Adobe InDesign creates page layouts for multi-page brochures, tri-folds, flyers, newsletters, books, Web sites, and Web-based publications with a professional quality. In this hands-on, overview course, students work with images; use guides and grids; set up master sheets and styles. Enrollment is limited to six times within the LINC 72B, 72C & 72D group. [FHGE: Non-GE; Transferable: CSU]

LINC 72C ADOBE INDESIGN I .5 Unit
Advisory: Appropriate skills and abilities with computer systems and internet technologies.
May be taken 6 times for credit.
.5 hour lecture.
 This short course is designed for educators and includes hands-on experiences that demonstrate the effective integration of technologies for teaching and learning with any standards based curriculum. Emphasis is given to creating student-centered projects or activities using In Design for desktop publishing. Learn to design page layouts, import, format, and edit text, import and arrange photos, while creating pages that incorporate professional graphic design elements. Enrollment is limited to six times within the LINC 72B, 72C & 72D group. [FHGE: Non-GE; Transferable: CSU]

LINC 72D ADOBE INDESIGN II .5 Unit
Advisory: Appropriate skills and abilities with computer systems and internet technologies.
May be taken 6 times for credit.
.5 hour lecture.
 This short course is designed for educators and includes hands-on experiences that demonstrate the effective integration of technologies for teaching and learning with any standards based curriculum. Emphasis is given to creating student-centered projects or activities using In Design for desktop publishing. Learn to design page layouts, fine-tune skills for importing, formatting, and editing text, draw and modify illustrations, import and arrange photos, automate your work-flow, while creating stunning and professional page layouts for student learning. Enrollment is limited to six times within the LINC 72B, 72C & 72D group. [FHGE: Non-GE; Transferable: CSU]

LINC 73 ADOBE PHOTOSHOP OVERVIEW 1 Unit
Advisory: Appropriate skills and abilities with computer systems and internet technologies.
May be taken 6 times for credit.
1 hour lecture.
 This short course is designed for educators and includes hands-on experiences that integrate digital imaging with teaching and learning. Emphasis is given to creating student-centered projects or activities using Photoshop. Learn to enhance image color and contrast, touch-up photos, create collages that tell stories, paint with the paint tools, create layouts with text, apply filters and special effects, automate your work-flow. Enrollment is limited to six times within the LINC 73-73F group. [FHGE: Non-GE; Transferable: CSU]

LINC 73A ADOBE PHOTOSHOP I .5 Unit
Advisory: Appropriate skills and abilities with computer systems and internet technologies.
May be taken 6 times for credit.
.5 hour lecture.
 This short course is designed for educators and includes hands-on experiences that integrate digital imaging with teaching and learning. Emphasis is given to creating student-centered projects or activities using Photoshop. Learn to enhance image color and contrast, touch-up photos, create collages that tell stories, design layouts, paint with the paint tools, manipulate and enhance text to create unique typographic effects, while creating student-centered projects. Enrollment is limited to six times within the LINC 73-73F group. [FHGE: Non-GE; Transferable: CSU]

LINC 73B ADOBE PHOTOSHOP II .5 Unit
Advisory: Appropriate skills and abilities with computer systems and internet technologies.
May be taken 6 times for credit.
.5 hour lecture.
 This short course is designed for educators and includes hands-on experiences that integrate digital imaging with teaching and learning. Emphasis is given to creating student-centered projects or activities using Photoshop. Learn to fine-tune image color and contrast enhancements, construct images that tell stories, paint with the paint tools, create layouts, format text, apply special effects, automate your work-flow, while applying best practices of graphic design principles. Enrollment is limited to six times within the LINC 73-73F group. [FHGE: Non-GE; Transferable: CSU]

LINC 73D ADOBE PHOTOSHOP ELEMENTS OVERVIEW 1 Unit
Advisory: Proficiency in a Mac or Windows operating system, software conventions, and internet technologies.
May be taken 5 times for credit.
1 hour lecture.
 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. Enrollment is limited to six times within the LINC 73-73F group. [FHGE: Non-GE; Transferable: CSU]

LINC 73E ADOBE PHOTOSHOP ELEMENTS I .5 Unit
Advisory: Familiarity with PC or Mac; basic internet skills.
May be taken 3 times for credit.
.5 hour lecture.
 This course is an introduction to educational technology in the classroom. 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. Enrollment is limited to six times within the LINC 73-73F group. [FHGE: Non-GE; Transferable: CSU]

LINC 73F ADOBE PHOTOSHOP ELEMENTS II .5 Unit
Advisory: Familiarity with PC or Mac; basic internet skills.
May be taken 3 times for credit.
.5 hour lecture.
 This is an intermediate course in educational technology in the classroom. 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. Enrollment is limited to six times within the LINC 73-73F group. [FHGE: Non-GE; Transferable: CSU]

LINC 73H ADOBE ILLUSTRATOR OVERVIEW 1 Unit
Advisory: Proficiency in a Mac or Windows operating system, software conventions, and internet technologies.
May be taken 5 times for credit.
1 hour lecture.
 Adobe Illustrator creates drawings, illustrations, and images for print or Web. Use vector graphics; draw objects, stroke outlines and pattern fills; work with brushes, gradients, color blends; design type; and develop graphs. Enrollment is limited to six times within the LINC 73H, 73I & 73J group. [FHGE: Non-GE; Transferable: CSU]

LINC 73I ADOBE ILLUSTRATOR I .5 Unit
Advisory: Familiarity with PC or Mac.
May be taken 6 times for credit.
.5 hour lecture.
 This course is an introduction to educational technology in the classroom. Adobe Illustrator is a software drawing tool. This class will provide hands-on experience with the basic elements and tools of Adobe Illustrator to produce one-page illustrations. Enrollment is limited to six times within the LINC 73H, 73I & 73J group. [FHGE: Non-GE; Transferable: CSU]

LINC 73J ADOBE ILLUSTRATOR II .5 Unit
Advisory: Familiarity with PC or Mac.
May be taken 6 times for credit.
.5 hour lecture.
 This is an intermediate course in educational technology in the classroom. Adobe Illustrator is a software drawing tool. This class will provide hands-on experience with the basic elements and tools of Adobe Illustrator to produce one-page illustrations. Enrollment is limited to six times within the LINC 73H, 73I & 73J group. [FHGE: Non-GE; Transferable: CSU]

LINC 74 ADOBE DREAMWEAVER OVERVIEW 1 Unit
Advisory: Proficiency in a Mac or Windows operating system, software conventions, and internet technologies.
May be taken 5 times for credit.
1 hour lecture.

Adobe Dreamweaver provides quick, elegant tools for Web site design and maintenance. In this hands-on overview course, plan the website set-up, develop layouts, build tables, format styles, layers, interactivity, and templates. Enrollment is limited to six times within the LINC 74 group. [FHGE: Non-GE; Transferable: CSU]

LINC 74A ADOBE DREAMWEAVER I .5 Unit
Advisory: Familiarity with PC or Mac; basic internet and email skills.
May be taken 6 times for credit.
.5 hour lecture.

This course is an introduction to educational technology in the classroom. Design and creation of World Wide Web pages using Macromedia Dreamweaver. Hands-on experience creating Web pages. Intended for Continuing Education. Enrollment is limited to six times within the LINC 74 group. [FHGE: Non-GE; Transferable: CSU]

LINC 74B ADOBE DREAMWEAVER II .5 Unit
Advisory: Familiarity with PC or Mac; basic internet and email skills.
May be taken 6 times for credit.
.5 hour lecture.

This is an intermediate course in educational technology in the classroom. Design and creation of World Wide Web pages using Macromedia Dreamweaver. Hands-on experience creating Web pages. Intended for Continuing Education. Enrollment is limited to six times within the LINC 74 group. [FHGE: Non-GE; Transferable: CSU]

LINC 76 CREATING EDUCATIONAL WEB SITES 2 Units
May be taken 6 times for credit.
2 hours lecture.

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. Enrollment is limited to six times within the LINC 76 group. [FHGE: Non-GE; Transferable: CSU]

LINC 76A CREATING EDUCATIONAL WEB SITES I 1 Unit
May be taken 6 times for credit.
1 hour lecture.

This course is an introduction to educational technology in the classroom. 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. Enrollment is limited to six times within the LINC 76 group. [FHGE: Non-GE; Transferable: CSU]

LINC 76C CREATING WEB QUESTS 2 Units
Advisory: Familiarity with PC or Mac; basic internet skills.
May be taken 6 times for credit.
2 hours lecture.

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. Enrollment is limited to six times within the LINC 76 group. [FHGE: Non-GE; Transferable: CSU]

LINC 79 MULTIMEDIA PROJECT PRODUCTION 2 Units
Advisory: Proficiency with computer systems (Macintosh or Windows), hardware, and internet technologies; familiarity with multimedia software.
May be taken 2 times for credit.
2 hours lecture.

This hands-on, project production course integrates multimedia software (i.e., Photoshop, Premiere or Premiere Elements, and After Effects) to create engaging multimedia for use in education, business and personal applications. [FHGE: Non-GE; Transferable: CSU]

LINC 80 MULTIMEDIA OVERVIEW 1 Unit
Advisory: Appropriate skills and abilities with computer systems and internet technologies.
May be taken 6 times for credit.
1 hour lecture.

This short course is an overview of multimedia software and hardware and the multimedia production process. It features hands-on experience with computer-based or internet software authoring tools to design and produce a multimedia project or presentation that integrates text, graphics, animation, sound, and digital video for educational, business, or entertainment purposes. Enrollment is limited to six times within the LINC 80 group. [FHGE: Non-GE; Transferable: CSU]

LINC 80A MULTIMEDIA IN THE CLASSROOM 1 Unit
Advisory: Appropriate skills and abilities with computer systems and internet technologies
May be taken 6 times for credit.
1 hour lecture.

This short course is an overview of the multimedia production process for use in any grade-level classroom. It features hands-on experience with computer-based or internet multimedia authoring tools to design and produce a student-centered project, such as an audio book, animation, musical slideshow, video composition, or interactive presentation. Enrollment is limited to six times within the LINC 80 group. [FHGE: Non-GE; Transferable: CSU]

LINC 80B MULTIMEDIA IN THE CLASSROOM I .5 Unit
Advisory: Appropriate skills and abilities with computer systems and internet technologies.
May be taken 6 times for credit.
.5 hour lecture.

This entry-level short course is designed for educators who want to learn a multimedia production process for use in any grade-level classroom. It features hands-on experience with computer-based or internet multimedia authoring tools to design and produce a simple student-centered project, such as an audio book, animation, musical slideshow, video composition, or interactive presentation. Enrollment is limited to six times within the LINC 80 group. [FHGE: Non-GE; Transferable: CSU]

LINC 81A USING DIGITAL IMAGES I .5 Unit
Advisory: Not open to students with credit in COIN 211A.
May be taken 3 times for credit.
.5 hour lecture.

This course is an introduction to educational technology in the classroom. 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. [FHGE: Non-GE; Transferable: CSU]

LINC 81B ADOBE FIREWORKS OVERVIEW 1 Unit
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.

This is an intermediate course in educational technology in the classroom. 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. Enrollment is limited to six times within the LINC 81B, 81C & 81D group. [FHGE: Non-GE; Transferable: CSU]

LINC 81C ADOBE FIREWORKS I .5 Unit
Advisory: Appropriate skills and abilities with computer systems and internet technologies.
May be taken 4 times for credit.
.5 hour lecture.

In this introductory course, create animated Web sites with Adobe Fireworks; build interactive buttons; resize, crop, and optimize images; build different layouts and templates. Enrollment is limited to six times within the LINC 81B, 81C & 81D group. [FHGE: Non-GE; Transferable: CSU]

LINC 81D ADOBE FIREWORKS II .5 Unit
Formerly: LINC 82CS
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. Enrollment is limited to six times within the LINC 81B, 81C & 81D group. [FHGE: Non-GE; Transferable: CSU]

LINC 83A ADOBE PREMIER 1 Unit
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.
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. [FHGE: Non-GE; Transferable: CSU]

LINC 83F INTRODUCTION TO DIGITAL VIDEO EDITING 1 Unit
Advisory: Appropriate skills and abilities with computer systems and internet technologies.
May be taken 6 times for credit.
1 hour lecture.
This introductory course covers the skills to create short, digital movies for the Web or computer playback using low-cost or free software. Course topics including making titles, adding sound, and creating animation effects. Class projects are designed for use in education, business, and personal applications. [FHGE: Non-GE; Transferable: CSU]

LINC 85A ADOBE FLASH I .5 Unit
Advisory: Proficiency in a Mac or Windows operating system, software conventions, and internet technologies; 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 dynamic content and animations for Web, multimedia, and presentations. Develop interactive animations of illustrations, photos, and type. In this introductory, hands-on course, learn basic Flash drawing tools, animation basics, tweening, and export options. Enrollment is limited to six times within the LINC 85 group. [FHGE: Non-GE; Transferable: CSU]

LINC 85B ADOBE FLASH II .5 Unit
Advisory: LINC 85A; Familiarity with Fireworks or similar photo editing software; Dreamweaver or similar Web page authoring software; proficiency in a Mac or Windows operating system, software conventions, and internet technologies.
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. Enrollment is limited to six times within the LINC 85 group. [FHGE: Non-GE; Transferable: CSU]

LINC 85C ADOBE FLASH OVERVIEW 1 Unit
Advisory: Proficiency in a computer operating system (Mac or Windows), software conventions, and internet technologies. Familiarity with Fireworks or similar photo editing software and with Dreamweaver or similar Web page authoring software.
May be taken 5 times for credit.
1 hour lecture.
In this extended Adobe Flash course, create dynamic content and animations for Web, multimedia, and presentations; develop interactive animations of illustrations, photos, and type using drawing tools, animation basics, and button scripting. Enrollment is limited to six times within the LINC 85 group. [FHGE: Non-GE; Transferable: CSU]

LINC 86 VIDEO PODCASTING OVERVIEW 1 Unit
Advisory: Appropriate skills and abilities with computer systems and internet technologies.
May be taken 3 times for credit.
1 hour lecture.
This is a hands-on course on video and multimedia podcast production. Using free and industry-standard editing software, participants will create a podcast of presentations or tutorials of onscreen computer activity. Enrollment is limited to six times within the LINC 86 group. [FHGE: Non-GE; Transferable: CSU]

LINC 86A VIDEO PODCASTING I .5 Unit
Advisory: Appropriate skills and abilities with computer systems and internet technologies.
Not Repeatable.
.5 hour lecture.
This is a hands-on, introductory course on video podcast production. Using free and industry-standard editing software, participants will create a basic podcast of a presentations. Enrollment is limited to six times within the LINC 86 group. [FHGE: Non-GE; Transferable: CSU]

LINC 86B VIDEO PODCASTING II .5 Unit
Advisory: Appropriate skills and abilities with computer systems and internet technologies.
Not Repeatable.
.5 hour lecture.
This is a continuation of the introductory course on video podcast production. Using free and industry-standard software, participants will create a tutorial podcast of onscreen computer activity. Enrollment is limited to six times within the LINC 86 group. [FHGE: Non-GE; Transferable: CSU]

LINC 90B OPEN EDUCATION RESOURCES 1 Unit
Advisory: Appropriate skills and abilities with computer systems and internet technologies.
May be taken 3 times for credit.
1 hour lecture.
This course is an overview to Open Educational Resources (OER) and the use of free public domain materials for teaching and learning. It aims to build educators knowledge and skills necessary to find, adapt, re-purpose and create accessible OER for use in education and training environments. Specific topics covered include OER terminology, OER quality, copyright and fair use issues, sources and repositories of public domain materials in various disciplines, technical issues regarding accessibility, and uses of Creative Commons. Participants will explore and analyze OER tools and standards available to develop, organize and disseminate content. 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 various disciplines, lesson plan development that incorporates use of the identified public domain learning materials will also be addressed. [FHGE: Non-GE; Transferable: CSU]

LINC 90C ONLINE COLLABORATION TOOLS 2 Units
Advisory: Appropriate skills and abilities with computer systems and internet technologies.
May be taken 5 times for credit.
2 hours lecture.
This course features online collaboration tools for educational, business, or personal use. This course will explore different collaborative technologies and shared documents using the Internet with emphasis on how these tools can be integrated with curriculum and student projects; on more effective communication and collaboration for all participants; and on how these tools can be used for planning and evaluating projects. [FHGE: Non-GE; Transferable: CSU]

LINC 95A CHILD SAFETY, INTERNET ETHICS & CYBER LAW 2 Units

Advisory: Appropriate computer systems and internet technology skills. May be taken 5 times for credit.

2 hours lecture.

Concerned about cyberbullying, keeping students safe on the Internet, and teaching kids to be ethical, responsible users of technology? This course addresses these issues and will guide you to develop pro-active solutions to help young people become informed, responsible, safe users of technology. [FHGE: Non-GE; Transferable: CSU]

LINC 95B TECHNOLOGY ETHICS & CYBER LAW 1 Unit

Advisory: Appropriate skills and abilities with computer systems and internet technologies.

May be taken 2 times for credit.

1 hour lecture.

This course is will review current issues and legislation in computer ethics and cyber law. Copyright, fair use, legal implications, Acceptable Use Plans will be discussed and implications for the classroom will be explored. Internet resources will be explored. This course will also cover validity of Internet resources. [FHGE: Non-GE; Transferable: CSU]

LINC 95C ASSESSMENT STRATEGIES FOR TECHNOLOGY INTEGRATION 1 Unit

Advisory: Appropriate skills and abilities with computer systems and internet technologies.

May be taken 3 times for credit.

1 hour lecture.

This short course guides educators in determining if technology integration is effective for teaching and learning. The content explores assessment strategies for technology integration when applied to curriculum development, teaching, and student learning. Participants will create formative and summative assessments of how technology infused instruction affects teaching practice and facilitates students' use of technology to learn and communicate. [FHGE: Non-GE; Transferable: CSU]

LINC 96B HANDHELD DIGITAL MEDIA DEVICES I .5 Unit

Advisory: Appropriate skills and abilities with computer systems and internet technologies.

May be taken 6 times for credit.

.5 hour lecture.

This introductory course is designed for educators at all levels or trainers who are interested in exploring how hand-held devices can be applied in an education or training setting. The course provides hands on experience with hand-held devices such as smartphones, tablet computers, ipods, etc. Participants will learn how to operate the hand-held, explore available software for the device, and learn how to use it for educational, training or other projects. Enrollment is limited to six times within the LINC 96 group. [FHGE: Non-GE; Transferable: CSU]

LINC 96C HANDHELD DIGITAL MEDIA DEVICES II .5 Unit

Advisory: Appropriate skills and abilities with computer systems and internet technologies.

May be taken 6 times for credit.

.5 hour lecture.

Provides hands on experience with handheld devices (PDAs) such This intermediate course builds on LINC 96B and is designed for educators at all levels or trainers who are interested in developing activities, lessons, or experiments using hand-held devices in education or training settings. The course provides hands on experience with hand-held devices such as smartphones, tablet computers, ipods, etc. Enrollment is limited to six times within the LINC 96 group. [FHGE: Non-GE; Transferable: CSU]

LINC 98 TEACHING & LEARNING IN THE DIGITAL AGE 1 Unit

Advisory: Appropriate skills and abilities with computer systems and internet technologies.

May be taken 5 times for credit.

1 hour lecture.

Designed for educators, trainers, and instructional designers who want to develop and integrate innovative technology into the classroom or training environment. Evaluate educational technologies and systems. Develop projects that enhance teaching and learning with technology. Analyze the role of technology in student-centered learning environments. Enrollment is limited to six times within the LINC 98 group. [FHGE: Non-GE; Transferable: CSU]

LINC 98A TEACHING & LEARNING IN THE DIGITAL AGE I .5 Unit

Advisory: Appropriate skills and abilities with computer systems and internet technologies.

May be taken 3 times for credit.

.5 hour lecture.

This course is an introduction to educational technology in the classroom. Designed for educators, trainers, and instructional designers who want to develop and integrate an innovative technology project into the classroom or training environment. Develop a basic project that enhances teaching and learning with technology. Analyze the role of technology in student-centered learning environments. Enrollment is limited to six times within the LINC 98 group. [FHGE: Non-GE; Transferable: CSU]

LINC 98B TEACHING & LEARNING IN THE DIGITAL AGE II .5 Unit

Advisory: Appropriate skills and abilities with computer systems and internet technologies.

May be taken 2 times for credit.

.5 hour lecture.

This is an intermediate course in educational technology in the classroom. Designed for educators, trainers, and instructional designers who want to develop and integrate an advanced, multi-component technology project into the classroom or training environment. Develop advanced skills in multimedia production for projects related to teaching and training, such as interactive learning environments and tutorials. Enrollment is limited to six times within the LINC 98 group. [FHGE: Non-GE; Transferable: CSU]

LIBRARY SCIENCE

Language Arts

(650) 949-7608
www.foothill.edu/ol/

LIBR 10 RESEARCH PAPER SEARCH STRATEGIES 1 Unit

Formerly: LIBR 71

Advisory: Familiarity with Macs or PCs; not open to students with credit in LIBR 71.

Not Repeatable.

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. [FHGE: Lifelong Understanding; Transferable: UC/CSU]

MATHEMATICS

Physical Sciences, Mathematics & Engineering (650) 949-7259
www.foothill.edu/psme/

MATH 1A CALCULUS 5 Units

Prerequisite: Satisfactory score on the mathematics placement test or MATH 49 or 48C.

Advisory: Eligibility for ENGL 1A or ESLL 26.

Not Repeatable.

5 hours lecture.

Introduction to differential calculus, including limits, derivatives and their applications to curve-sketching, families of functions, and optimization. [FHGE: Communication & Analytical Thinking; Transferable: UC/CSU]

MATH 1B CALCULUS 5 Units

Prerequisite: MATH 1A.

Advisory: Eligibility for ENGL 1A or ESLL 26.

Not Repeatable.

5 hours lecture.

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. [FHGE: Communication & Analytical Thinking; Transferable: UC/CSU]

MATH 1C CALCULUS 5 Units

Prerequisite: MATH 1B.

Advisory: Eligibility for ENGL 1A or ESLL 26.

Not Repeatable.

5 hours lecture.

Introduction to functions of more than one variable, including vectors, partial differentiation, the gradient, contour diagrams and optimization. Additional topics include infinite series, convergence and Taylor series. [FHGE: Communication & Analytical Thinking; Transferable: UC/CSU]

MATH 1D CALCULUS 5 Units

Prerequisite: MATH 1C.

Advisory: Eligibility for ENGL 1A or ESLL 26.

Not Repeatable.

5 hours lecture.

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. [FHGE: Non-GE; Transferable: UC/CSU]

MATH 2A DIFFERENTIAL EQUATIONS 5 Units

Prerequisite: MATH 1C.

Advisory: Eligibility for ENGL 1A or ESLL 26.

Not Repeatable.

5 hours lecture.

Differential equations and selected topics of mathematical analysis. [FHGE: Communication & Analytical Thinking; Transferable: UC/CSU]

MATH 2B LINEAR ALGEBRA 5 Units

Prerequisite: MATH 1C.

Advisory: Eligibility for ENGL 1A or ESLL 26.

Not Repeatable.

5 hours lecture.

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. [FHGE: Communication & Analytical Thinking; Transferable: UC/CSU]

MATH 10 ELEMENTARY STATISTICS 5 Units

Prerequisite: Satisfactory score on the mathematics placement test or MATH 105 or 108.

Advisory: Eligibility for ENGL 1A or ESLL 26.

Not Repeatable.

5 hours lecture.

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. [FHGE: Communication & Analytical Thinking; Transferable: UC/CSU]

MATH 11 FINITE MATHEMATICS 5 Units

Prerequisite: Satisfactory score on the placement test or MATH 105 or 108.

Advisory: Eligibility for ENGL 1A or ESLL 26.

Not Repeatable.

5 hours lecture.

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. [FHGE: Communication & Analytical Thinking; Transferable: UC/CSU]

MATH 12 CALCULUS FOR BUSINESS & ECONOMICS 5 Units

Prerequisite: MATH 11.

Advisory: Eligibility for ENGL 1A or ESLL 26.

Not Repeatable.

5 hours lecture.

Elementary ideas of differential and integral calculus. Differentiation of multivariate functions with their applications. Applications to business and economics. [FHGE: Communication & Analytical Thinking; Transferable: UC/CSU]

MATH 17 INTEGRATED STATISTICS II 5 Units

Prerequisite: MATH 217.

Advisory: Eligibility for ENGL 1A or ESLL 26.

Not Repeatable.

5 hours lecture.

This is the second quarter of two in the Statway sequence. This sequence covers concepts and methods of statistics with an emphasis on data analysis. Topics include methods for collecting data, graphical and numerical descriptive statistics, correlation, simple linear regression, basic concepts of probability, confidence intervals and hypothesis tests for means and proportions, chi-square tests, and ANOVA. Application problems will be taken from the fields of business, economics, medicine, engineering, education, psychology, sociology and from culturally diverse situations. This sequence is recommended for students with majors that require no mathematics beyond freshman-level statistics. [FHGE: Communication & Analytical Thinking; Transferable: CSU]

MATH 22 DISCRETE MATHEMATICS 5 Units

Prerequisite: Satisfactory score on the mathematics placement test or MATH 49 or 48C.

Advisory: Not open to students with credit in CIS 18; Eligibility for ENGL 1A or ESLL 26.

Not Repeatable.

5 hours lecture.

Discrete mathematics: set theory, logic, Boolean algebra, methods of proof, mathematical induction, number theory, discrete probability, combinatorics, functions, relations, recursion, algorithm efficiencies, graphs, trees. [FHGE: Communication & Analytical Thinking; Transferable: UC/CSU]

MATH 34H HONORS INSTITUTE SEMINAR IN MATHEMATICS 1 Unit

Formerly: MATH 34

Prerequisite: Honors Institute participant.

Advisory: Not open to students with credit in MATH 34; eligibility for ENGL 1A or ESLL 26.

Not Repeatable.

1 hour lecture.

A seminar in directed readings, discussions and projects in mathematics. Specific topics to be determined by the instructor. [FHGE: Non-GE; Transferable: CSU]

MATH 36 SPECIAL PROJECTS IN MATHEMATICS 1 Unit
MATH 36X 2 Units
MATH 36Y 3 Units
Advisory: Previous experience in mathematics; eligibility for ENGL 1A or ESLL 26.
May be taken 6 times for credit.
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. Enrollment is limited to 6 times within the MATH 36 group. [FHGE: Non-GE; Transferable: CSU]

MATH 44 MATH FOR THE LIBERAL ARTS 5 Units
Prerequisite: Satisfactory score on the mathematics placement exam or MATH 105 or 108.
Advisory: Eligibility for ENGL 1A or ESLL 26.
Not Repeatable.
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. [FHGE: Communication & Analytical Thinking; Transferable: UC/CSU]

MATH 48A PRECALCULUS I 5 Units
Prerequisite: Satisfactory score on the mathematics placement test or MATH 105 or 108.
Advisory: Eligibility for ENGL 1A or ESLL 26.
Not Repeatable.
5 hours lecture.
 Introduction to families of functions including quadratics, power functions and polynomials, transformation of functions, and their applications. [FHGE: Communication & Analytical Thinking; Transferable: UC/CSU]

MATH 48B PRECALCULUS II 5 Units
Prerequisite: MATH 48A.
Advisory: Eligibility for ENGL 1A or ESLL 26.
Not Repeatable.
5 hours lecture.
 This course is a continuation of topics from MATH 48A. Topics include exponential and logarithmic functions, introduction to trigonometry and the six trigonometric functions, and the trigonometry of right and oblique triangles. [FHGE: Communication & Analytical Thinking; Transferable: UC/CSU]

MATH 48C PRECALCULUS III 5 Units
Prerequisite: MATH 48B.
Advisory: Eligibility for ENGL 1A or ESLL 26.
Not Repeatable.
5 hours lecture.
 This course is a continuation of topics from MATH 48B. Topics include the six trigonometric functions, trigonometric identities, inverse trigonometric functions, trigonometric equations, vectors, rational functions, parametric equations, logic, and modeling data with various functions. [FHGE: Communication & Analytical Thinking; Transferable: UC/CSU]

MATH 49 PRECALCULUS 5 Units
Prerequisite: Satisfactory score on the mathematics placement test or MATH 51.
Advisory: Eligibility for ENGL 1A or ESLL 26.
Not Repeatable.
5 hours lecture.
 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. [FHGE: Communication & Analytical Thinking; Transferable: UC/CSU]

MATH 51 TRIGONOMETRY 5 Units
Prerequisite: Satisfactory score on the mathematics placement test or MATH 105.
Advisory: Eligibility for ENGL 1A or ESLL 26.
Not Repeatable.
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. [FHGE: Communication & Analytical Thinking; Transferable: CSU]

MATH 100 OPEN COMPUTER LABORATORY .5 Unit
MATH 100X 1 Unit
MATH 100Y 2 Units
Advisory: Pass/No Pass.
Corequisite: Concurrent enrollment in any Mathematics course.
May be taken 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 mathematics courses which is beyond the time allocated to the course. Enrollment is limited to 6 times within the MATH 100 group. [FHGE: Non-GE; Transferable: Not transferable]

MATH 105 INTERMEDIATE ALGEBRA 5 Units
Prerequisite: Satisfactory score on the mathematics placement test or MATH 220 or 224.
Not Repeatable.
5 hours lecture.
 Quadratic, polynomial, rational, radical, exponential and logarithmic functions and expressions with an emphasis on graphing and applications. [FHGE: Non-GE; Transferable: Not transferable]

MATH 108 ACCELERATED ALGEBRA 10 Units
Prerequisites: Satisfactory score on the mathematics placement test, or successful completion of MATH 200, 230, 230J, 234, and 238.
Not Repeatable.
10 hours lecture.
 This course will cover content from two algebra courses, beginning and intermediate algebra. The content consists of linear equations, linear inequalities, linear systems, polynomials with focus on quadratics, rationals, radicals, absolute values, exponential and logarithmic functions. Relationships between analytical, graphical, numerical, and verbal approaches will be emphasized. [FHGE: Non-GE; Transferable: Not transferable]

MATH 217 INTEGRATED STATISTICS I 10 Units
Prerequisites: Satisfactory score on the mathematics placement test; MATH 200, 230, 230J, 234, or 238.
Advisory: Eligibility for ENGL 1A or ESLL 26.
Not Repeatable.
10 hours lecture.
 This is the first quarter of two in the Statway sequence. This sequence covers concepts and methods of statistics with an emphasis on data analysis. Topics include methods for collecting data, graphical and numerical descriptive statistics, correlation, simple linear regression, basic concepts of probability, confidence intervals and hypothesis tests for means and proportions, chi-square tests, and ANOVA. Application problems will be taken from the fields of business, economics, medicine, engineering, education, psychology, sociology and from culturally diverse situations. This sequence is recommended for students with majors that require no mathematics beyond freshman-level statistics. [FHGE: Communication & Analytical Thinking; Transferable: Not transferable]

<p>MATH 220 ELEMENTARY ALGEBRA 4 Units <i>Formerly: MATH 101</i> Non-degree applicable basic skills course. Prerequisites: 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. Corequisite: MATH 221. Not Repeatable. 5 hours lecture. Linear equations, linear inequalities, graphs, linear systems, operations on quadratics, factoring, and proportional reasoning. [FHGE: Non-GE; Transferable: Not transferable]</p>	<p>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. [FHGE: Non-GE; Transferable: Not transferable]</p>
<p>MATH 221 ACTIVITIES FOR MASTERY OF BEGINNING ALGEBRA CONCEPTS 1 Unit Non-degree applicable basic skills course. Corequisite: MATH 220. Not Repeatable. 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. [FHGE: Non-GE; Transferable: Not transferable]</p>	<p>MATH 234 PREPARING FOR ALGEBRA: SUMMER EDITION 5 Units Non-degree applicable basic skills course. Prerequisites: Students must have been enrolled in MATH 230 the preceeding Fall, Winter or Spring quarter; MATH 235. Advisory: Pass/No Pass; not open to students with credit in MATH 200. May be taken 3 times for credit. 5 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. This course is a continuation of MATH 230. [FHGE: Non-GE; Transferable: Not transferable]</p>
<p>MATH 224 ELEMENTARY ALGEBRA: SUMMER EDITION 5 Units <i>Formerly: MATH 101</i> Non-degree applicable basic skills course. Prerequisites: 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 220. Not Repeatable. 5 hours lecture. Linear equations, linear inequalities, graphs, linear systems, operations on quadratics, factoring, and proportional reasoning. [FHGE: Non-GE; Transferable: Not transferable]</p>	<p>MATH 235 ALTERNATE CREDIT ARITHMETIC & MATHEMATICAL DEVELOPMENT 5 Units Non-degree applicable basic skills course. Corequisite: MATH 231. 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. [FHGE: Non-GE; Transferable: Not transferable]</p>
<p>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: Pass/No Pass; not open to students with credit in MATH 200, 230J, 234, or 238. Corequisite: MATH 231. Not Repeatable. 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. [FHGE: Non-GE; Transferable: Not transferable]</p>	<p>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. [FHGE: Non-GE; Transferable: Not transferable]</p>
<p>MATH 230J PREPARING FOR ALGEBRA 3 Units Non-degree applicable basic skills course. Prerequisites: Completion of 7 or more modules from MATH 230. Not Repeatable. 3 hours lecture, 1 hour laboratory. Development and applications of percents and geometric concepts. Review of addition, subtraction, multiplication and division of whole numbers, fractions, decimals and signed numbers. Review of algebraic concepts including solving first-degree equations and evaluating and simplifying expressions, and applications of ratios and proportions. [FHGE: Non-GE; Transferable: Not transferable]</p>	<p>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. Not Repeatable. 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. [FHGE: Non-GE; Transferable: Not transferable]</p>
<p>MATH 230X ARITHMETIC PREPARATION 1 Unit Non-degree applicable basic skills course. Not Repeatable. 1 hour lecture. Introduction to addition, subtraction, multiplication and division of whole numbers in preparation for basic skills mathematics course. [FHGE: Non-GE; Transferable: Not transferable]</p>	<p>MATH 300 PREPARATION FOR ARITHMETIC 5 Units Non-degree applicable basic skills course. Advisory: Pass/No Pass Not Repeatable. 5 hours lecture. Introduction to addition, subtraction, multiplication and division of whole numbers in preparation for basic skills mathematics course. [FHGE: Non-GE; Transferable: Not transferable]</p>

MUSIC

Fine Arts & Communication

(650) 949-7156

www.foothill.edu/music/

MUS 1 INTRODUCTION TO MUSIC 4 Units
Not Repeatable.

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. [FHGE: Humanities; Transferable: UC/CSU]

MUS 2A GREAT COMPOSERS & MUSIC MASTERPIECES OF WESTERN CIVILIZATION 4 Units

Not Repeatable.

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. [FHGE: Humanities; Transferable: UC/CSU]

MUS 2B GREAT COMPOSERS & MUSIC MASTERPIECES OF WESTERN CIVILIZATION 4 Units

Not Repeatable.

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. [FHGE: Humanities; Transferable: UC/CSU]

MUS 2C GREAT COMPOSERS & MUSIC MASTERPIECES OF WESTERN CIVILIZATION 4 Units

Not Repeatable.

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 their music reflects their own lives as well as mirrors contemporary social, political, and religious events. Historical period is mid-19th Century Romanticism through the present. Composers include Schumann, Chopin, Mendelssohn, Brahms, Berlioz, Liszt, Tchaikovsky, Mussorgsky, Strauss, Verdi, Wagner, Bizet, Debussy, Ravel, Ives, Copell, Bartok, Berg, Webern, Stravinsky, Copland, Varese, Babbitt, Cage, Crumb, Ligeti, Penderecki, Reich, Glass and Adams. [FHGE: Humanities; Transferable: UC/CSU]

MUS 2D WORLD MUSIC: ROOTS TO CONTEMPORARY GLOBAL FUSION 4 Units

Not Repeatable.

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. [FHGE: Humanities; Transferable: UC/CSU]

MUS 3A BEGINNING MUSIC THEORY, LITERATURE & COMPOSITION 5 Units

Advisory: MUS 12A strongly recommended.

Not Repeatable.

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. [FHGE: Humanities; Transferable: UC/CSU]

MUS 3B INTERMEDIATE MUSIC THEORY, LITERATURE & COMPOSITION 5 Units

Advisory: MUS 3A proficiency or equivalent.

Not Repeatable.

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. [FHGE: Humanities; Transferable: UC/CSU]

MUS 3C ADVANCED MUSIC THEORY, LITERATURE & COMPOSITION 5 Units

Advisory: MUS 3B proficiency or equivalent.

Not Repeatable.

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. [FHGE: Humanities; Transferable: UC/CSU]

MUS 7 CONTEMPORARY MUSICAL STYLES: ROCK, POP & JAZZ 4 Units

Not Repeatable.

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. [FHGE: Humanities; Transferable: UC/CSU]

MUS 7D CONTEMPORARY MUSICAL STYLES: THE BEATLES IN THE CULTURE OF POPULAR MUSIC 4 Units

Not Repeatable.

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. [FHGE: Humanities; Transferable: UC/CSU]

MUS 7E HISTORY OF THE BLUES 4 Units

Not Repeatable.

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 flatted "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. [FHGE: Humanities; Transferable: UC/CSU]

**MUS 8 MUSIC OF
 MULTICULTURAL AMERICA 4 Units**

**Advisory: Not open to students with credit in MUS 8H.
Not Repeatable.**

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. [FHGE: **United States Cultures & Communities, Humanities; Transferable: UC/CSU**]

**MUS 8H HONORS MUSIC OF
 MULTICULTURAL AMERICA 4 Units**

Prerequisite: Honors Institute participant.

**Advisory: Not open to students with credit in MUS 8.
Not Repeatable.**

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 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. [FHGE: **United States Cultures & Communities, Humanities; Transferable: UC/CSU**]

MUS 10 MUSIC FUNDAMENTALS 4 Units

Not Repeatable.

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. [FHGE: **Humanities; Transferable: UC/CSU**]

MUS 11A JAZZ & SWING 4 Units

Formerly: MUS 64A

**Advisory: Not open to students with credit in MUS 64A.
Not Repeatable.**

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. [FHGE: **Humanities; Transferable: UC/CSU**]

MUS 11B FUNK, FUSION & HIP-HOP 4 Units

Formerly: MUS 64B

**Advisory: Not open to students with credit in MUS 64B.
Not Repeatable.**

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/define 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 Pastorius, Pat Metheny, Grandmaster Flash, Africa Bambaataa, 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. [FHGE: **Humanities; Transferable: UC/CSU**]

MUS 11C SALSA & LATIN JAZZ 4 Units

Formerly: MUS 64C

**Advisory: Not open to students with credit in MUS 64C.
Not Repeatable.**

4 hours lecture, 1 hour laboratory.

History and analysis of Afro-Caribbean musical styles that have developed into modern Salsa and Latin Jazz. An introduction to the instruments, performers, composers, compositions and recordings that defined/define 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, Chucho Valdez, and others. Styles include Danzon, Son, Mambo, Rhumba, Guaguanco, Guaracha, Son Montuno, Cha Cha, Guajira, Cumbia, Plena, Bomba, Merengue and others. [FHGE: **Non-GE; Transferable: UC/CSU**]

MUS 12A BEGINNING CLASS PIANO 2 Units

Advisory: Concurrent enrollment in MUS 10.

May be taken 2 times for credit.

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. [FHGE: **Non-GE; Transferable: UC/CSU**]

MUS 12B INTERMEDIATE CLASS PIANO 2 Units

Advisory: MUS 12A or equivalent skills.

May be taken 2 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. [FHGE: **Non-GE; Transferable: UC/CSU**]

MUS 12C ADVANCED CLASS PIANO 2 Units

Advisory: MUS 12B or equivalent skills.

May be taken 2 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. [FHGE: **Non-GE; Transferable: UC/CSU**]

MUS 13A CLASS VOICE I 1 Unit

Advisory: MUS 12A taken concurrently.

May be taken 2 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. [FHGE: **Non-GE; Transferable: UC/CSU**]

MUS 13B CLASS VOICE II 1 Unit

Prerequisite: MUS 13A.

May be taken 2 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. [FHGE: **Non-GE; Transferable: UC/CSU**]

MUS 13C CLASS VOICE III 1 Unit

Prerequisite: MUS 13B.

May be taken 2 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. [FHGE: **Non-GE; Transferable: UC/CSU**]

MUS 14A	BEGINNING CLASSICAL GUITAR	2 Units	MUS 27	SYMPHONY & CONCERTO	4 Units
<p>May be taken 2 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. [FHGE: Non-GE; Transferable: UC/CSU]</p>			<p>Advisory: MUS 1. Not Repeatable. 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. [FHGE: Non-GE; Transferable: UC/CSU]</p>		
MUS 14B	INTERMEDIATE CLASSICAL GUITAR	2 Units	MUS 34H	HONORS INSTITUTE SEMINAR IN MUSIC	1 Unit
<p>Advisory: MUS 14A May be taken 2 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. [FHGE: Non-GE; Transferable: UC/CSU]</p>			<p>Formerly: MUS 34 Prerequisite: Honors Institute participant. Advisory: Not open to students with credit in MUS 34. Not Repeatable. 1 hour lecture. A seminar in directed readings, discussions and projects in music. [FHGE: Non-GE; Transferable: CSU]</p>		
MUS 14C	ADVANCED CLASSICAL GUITAR	2 Units	MUS 35A	SPECIAL PROJECTS IN MUSIC	2 Units
<p>Advisory: MUS 14B. May be taken 2 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. [FHGE: Non-GE; Transferable: UC/CSU]</p>			<p>Formerly: MUS 35 May be taken 6 times for credit. 6 hours laboratory. A laboratory course involving an approved student project in traditional music such as theory, history and literature, or applied music. Performances or music productions for community musical events may be planned and executed in this class. [FHGE: Non-GE; Transferable: CSU]</p>		
MUS 15A	BEGINNING FOLK GUITAR	2 Units	MUS 35B	SPECIAL PROJECTS IN MUSIC TECHNOLOGY	2 Units
<p>May be taken 2 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. [FHGE: Non-GE; Transferable: UC/CSU]</p>			<p>Advisory: Students should take appropriate courses in music technology to gain requisite skills to complete a Special Project prior to enrollment. May be taken 6 times for credit. 6 hours laboratory. A laboratory course involving an approved student project in Music Technology such as a recording project, a mixing and mastering project, or other production project. Music productions involving live sound for musical events may be planned and executed in this class. [FHGE: Non-GE; Transferable: CSU]</p>		
MUS 15B	INTERMEDIATE FOLK GUITAR	2 Units	MUS 41	LIVE MUSIC PERFORMANCE WORKSHOP	2 Units
<p>Prerequisite: MUS 15A or equivalent. May be taken 2 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. [FHGE: Non-GE; Transferable: UC/CSU]</p>			<p>May be taken 6 times for credit. 1 hour lecture, 3 hours laboratory. 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. [FHGE: Non-GE; Transferable: UC/CSU]</p>		
MUS 15C	ADVANCED FOLK GUITAR	2 Units	MUS 50A	MUSIC BUSINESS	4 Units
<p>Prerequisites: MUS 15A and 15B or equivalent. May be taken 2 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. [FHGE: Non-GE; Transferable: UC/CSU]</p>			<p>Not Repeatable. 4 hours lecture, 1 hour 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. [FHGE: Non-GE; Transferable: CSU]</p>		
MUS 18	MUSIC PUBLISHING FOR SONGWRITERS	3.5 Units			
<p>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. [FHGE: Non-GE; Transferable: CSU]</p>					

MUS 50B ENTERTAINMENT LAW & NEW MEDIA 4 Units
May be taken 6 times for credit.
4 hours lecture, 1 hour 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. [FHGE: Non-GE; Transferable: CSU]

MUS 50C CAREERS IN MUSIC 4 Units
Formerly: MUS 65
May be taken 3 times for credit.
4 hours lecture, 1 hour 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. [FHGE: Non-GE; Transferable: 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. [FHGE: Non-GE; Transferable: UC/CSU]

MUS 58A SONGWRITER'S WORKSHOP I 3.5 Units
May be taken 2 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. [FHGE: Non-GE; Transferable: CSU]

MUS 58B SONGWRITER'S WORKSHOP II 3.5 Units
May be taken 2 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. [FHGE: Non-GE; Transferable: CSU]

MUS 58C SONGWRITER'S WORKSHOP III 4 Units
Prerequisites: MUS 58A, 58B or the equivalent.
May be taken 6 times for credit.
2 hours lecture, 2 hours lecture-laboratory, 3 hours laboratory.
Continuation of MUS 58A and B. Workshop course for songwriters that focuses on contemporary songwriting styles and techniques. This course focuses on advanced songwriting techniques in all styles. Performance and marketing opportunities are explored along with incorporating different stylistic elements for the advanced student. [FHGE: Non-GE; Transferable: CSU]

MUS 60A PRODUCING IN THE HOME STUDIO I 4 Units
May be taken 3 times for credit.
4 hours lecture, 1 hour 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. [FHGE: Non-GE; Transferable: 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 auxilliary tracks and busses. Mixing and mastering in various digital formats. [FHGE: Non-GE; Transferable: CSU]

MUS 62 SOUND REINFORCEMENT & LIVE RECORDING 4 Units
May be taken 6 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 and digital mixing boards. Microphone type, design, construction and selection. Loudspeaker monitor systems and their application with musical groups and performers. Stereo and multichannel recording techniques for live concert productions. Practice with live musicians in practice and performance settings. Location field recording dialog and ambient sound effects for film and TV synchronized to digital video. [FHGE: Non-GE; Transferable: CSU]

MUS 66A INTRODUCTION TO DIGITAL AUDIO: PRO TOOLS 4 Units
May be taken 6 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. [FHGE: Non-GE; Transferable: CSU]

MUS 66B REASON & PRO TOOLS 4 Units
May be taken 6 times for credit.
2 hours lecture, 2 hours lecture-laboratory, 3 hours laboratory.
Creating and editing digital audio with Pro Tools and Reason. Introduction to Reason's virtual instruments including Dr. Rex, Subtractor, Malstrom, Thor, Redrum and NN-Xt. Songwriting, musical composition, and the basic elements of music (pitch, rhythm, harmony, style and form) as they relate to contemporary music. Introduction to synthesis and digital sampling techniques. Integrate Reason and Pro Tools using ReWire, Pro Tools MIDI editor and the Pro Tools mixer. [FHGE: Non-GE; Transferable: CSU]

MUS 66C PRO TOOLS & VIRTUAL INSTRUMENTS 4 Units

May be taken 6 times for credit.

2 hours lecture, 2 hours lecture-laboratory, 3 hours laboratory.

Creating and editing digital audio with Pro Tools and virtual instruments. Avid Pro Tools plug-ins including Boom, Vacuum, Xpand, Structure, Mini Grand, Transfuser, Strike and Hybrid. Third party software includes Native Instruments Kontakt, Reason and Ableton Live. History of sampling and loop based compositional techniques. Create, edit, and arrange drum beats. Configure filters, envelopes, modulation, and arpeggiators. Modify all synthesizer parameters to create unique sounds. Utilize Pro Tools MIDI Editor and Score Editor. Analyze variety of musical styles utilizing MIDI and Virtual Instruments for composition and production. Examples from recording artists including The Beatles, Dr. Dre, Michael Jackson, Peter Gabriel, Radiohead, Herbie Hancock, Rachmaninov and Miles Davis. Organize sound libraries for music production, TV, film, websites and video games. [FHGE: Non-GE; Transferable: CSU]

MUS 80A RECORDING STUDIO BASICS 4 Units

May be taken 6 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 Avid Pro Tools HD systems. Microphone placement, physics of sound as it relates to recording, sound reinforcement and studio setup techniques. [FHGE: Non-GE; Transferable: CSU]

MUS 81A RECORDING STUDIO PRODUCTION TECHNIQUES 4 Units

May be taken 6 times for credit.

2 hours lecture, 2 hours lecture-laboratory, 3 hours laboratory.

Introduction to multitrack recording and production using AVID Pro Tools HD systems. Contemporary recording studio production techniques including microphone selection, placement, analog and digital signal paths, speaker monitors and studio acoustics. Techniques for recording drums, bass, piano, guitar, woodwinds, strings and vocals. Practical hands-on experience with professional recording artists and student collaborations. Access to Foothill College Recording Studios for personal projects and portfolio development. [FHGE: Non-GE; Transferable: 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. [FHGE: Non-GE; Transferable: CSU]

MUS 81C MIXING & MASTERING WITH PRO TOOLS 4 Units

May be taken 6 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, harmonic distortion, multi-band compression. Comparison and contrast of various styles of mixing including jazz, classical, country, rock, hip hop and electronica etc. 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. [FHGE: Non-GE; Transferable: CSU]

MUS 81D PRO TOOLS & PLUG-INS I 4 Units

May be taken 6 times for credit.

2 hours lecture, 2 hours lecture-laboratory, 3 hours laboratory.

Creative applications of Pro Tools hardware and software Plug-Ins used in contemporary music production and sound design. Signal processing, equalization, compression, Beat Detective, distortion, reverb, delay, pitch correction, modulation, advanced plug-in automation techniques. Compare plug-ins and processors from different companies including Sonnox, McDSP, Massey, Avid, Antares and Waves. Waves Certification Program textbook provides high-quality, standardized means of mastering Waves plug-ins. Successful completion achieves Waves Certification Level A. [FHGE: Non-GE; Transferable: CSU]

MUS 81E PRO TOOLS & PLUG-INS II 4 Units

May be taken 6 times for credit.

2 hours lecture, 2 hours lecture-laboratory, 3 hours laboratory.

Audio processing and mixing techniques using Pro Tools Plug-Ins with Waves Gold Certification Training material. Study and compare plug-ins from different manufactures including Sonnox, McDSP, Massey, Avid, Antares and Waves. Drum sample triggering and 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. Successful completion achieves Waves Gold Level Certification. [FHGE: Non-GE; Transferable: CSU]

MUS 82A PRO TOOLS 101: INTRODUCTION TO PRO TOOLS 4 Units

May be taken 6 times for credit.

2 hours lecture, 2 hours lecture-laboratory, 3 hours laboratory.

Introduction to Pro Tools with Avid Certification training material. Basic audio editing tools and techniques, plug-ins and mixing in the Pro Tools environment. Build sessions that include multitrack recordings of live instruments, MIDI sequences, virtual instruments, audio loops and beats. Practical experience with examples from major label recording artists and feature films. Understanding menus, windows, preferences and system configurations for Pro Tools in home studios and professional facilities. Intro to automation, dialog editing and audio post production for film and video. Required for Avid Pro Tools Certification. [FHGE: Non-GE; Transferable: CSU]

MUS 82B PRO TOOLS 110: PRO TOOLS PRODUCTION I 4 Units

May be taken 6 times for credit.

2 hours lecture, 2 hours lecture-laboratory, 3 hours laboratory.

Pro Tools production concepts and techniques with Avid Certification training material. Recording, editing, routing audio and MIDI data. Managing Pro Tools sessions, using virtual instruments, plug-ins, loop recording, Elastic Audio, Beat Detective and music notation. Conform loops and beats to any tempo. Introduction to control surfaces, automation modes and signal path workflows. Practical applications with examples from professional recording artists including pop, rock, jazz and hip hop. Create tempo maps, meter changes and transpose key signatures. Required for Avid Pro Tools Operator Level Certification. [FHGE: Non-GE; Transferable: CSU]

MUS 82C PRO TOOLS 201: PRO TOOLS PRODUCTION II 4 Units

May be taken 6 times for credit.

2 hours lecture, 2 hours lecture-laboratory, 3 hours laboratory.

Avid Pro Tools Certified training material covers concepts and skills needed to operate Pro Tools in a professional recording studio environment. Introduction to Pro Tools HD system configurations. Pro Tools HD features including control surfaces, automation, advanced editing, mixing, hardware setup and session management. Practical examples and experience with exercise files from professional music, film and TV productions. Required class for Avid Pro Tools Operator Level Certification. Prepares for enrollment in Pro Tools 300 Expert Level Certification Courses. [FHGE: Non-GE; Transferable: CSU]

MUS 82D PRO TOOLS 210M: MUSIC PRODUCTION TECHNIQUES 4 Units

May be taken 6 times for credit.
2 hours lecture, 2 hours lecture-laboratory, 3 hours laboratory.
 Avid Pro Tools Certified course completes skills needed to operate sophisticated Pro Tools systems in professional music production environments. Music production techniques, composing with MIDI, loop editing, sampling in Pro Tools, Beat Detective, drum replacement and augmentation, final mixing and mastering. Collaborate workflows between home studios and commercial recording facilities. Pro Tools keyboard shortcuts for increased efficiency. Practical examples and experience with exercise files from professional recording artists. Successful completion achieves Avid Pro Tools Operator Music Certification. [FHGE: Non-GE; Transferable: CSU]

MUS 85A MUSIC & MEDIA: EDISON TO HENDRIX 4 Units

Not Repeatable.
4 hours lecture, 1 hour laboratory.
 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 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. [FHGE: Humanities; Transferable: UC/CSU]

MUS 85B MUSIC & MEDIA: HENDRIX TO HIP-HOP 4 Units

Not Repeatable.
4 hours lecture, 1 hour laboratory.
 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. [FHGE: Humanities; Transferable: 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.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: UC/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.
May be taken 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. Enrollment is limited to 6 times within the MUS 150 group. [FHGE: Non-GE; Transferable: Not transferable]

MUSIC PERFORMANCE

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www.foothill.edu/fa/

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. [FHGE: Non-GE; Transferable: UC/CSU]

MUSP 24 GOSPEL CHORUS 2 Units
MUSP 24X 4 Units
MUSP 24Y 6 Units
MUSP 24Z 8 Units

May be taken 6 times for credit.
3 hours lecture-laboratory, 2 hours laboratory for each 2 units of credit.
 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. Enrollment is limited to 6 times within the MUSP 24 group. [FHGE: Non-GE; Transferable: UC/CSU]

MUSP 26 ADVANCED WOMEN'S CHORUS 2 Units

Prerequisites: Enrollment subject to standardized audition demonstrating musical ability and technical proficiency; prior singing experience or an instrumental background is required; fundamental sight reading.
May be taken 6 times for credit.
3 hours lecture-laboratory, 2 hours laboratory.
 Study, rehearsal, and performance of choral repertoire specifically 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. [FHGE: Non-GE; Transferable: UC/CSU]

MUSP 27 RENAISSANCE VOCAL 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.
 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. [FHGE: Non-GE; Transferable: 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 chamber choral music repertoire from the 15th to 20th centuries. Unaccompanied works and music with instrumental accompaniment will be included. Emphasis on the cultivation of skills needed to sing music from a variety of choral styles and historical periods. Attendance at all scheduled performances is required. [FHGE: Non-GE; Transferable: 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. [FHGE: Non-GE; Transferable: UC/CSU]

MUSP 32 SYMPHONIC WIND 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 performance of 20th Century band repertoire. The learning of correct playing techniques, particularly the stylistic demands of 20th Century performance, will be stressed. Attendance at all scheduled performances is mandatory. [FHGE: Non-GE; Transferable: UC/CSU]

MUSP 39 COLLEGE ORCHESTRA 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.
 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. [FHGE: Non-GE; Transferable: UC/CSU]

MUSP 40 SYMPHONY ORCHESTRA 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 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. [FHGE: Non-GE; Transferable: UC/CSU]

MUSP 49 MUSIC REHEARSAL & PERFORMANCE 2 Units
Advisory: Pass/No Pass.
May be taken 3 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. [FHGE: Non-GE; Transferable: UC/CSU]

NANOTECHNOLOGY

Physical Sciences, Mathematics & Engineering (650) 949-7259
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NANO 50 INTRODUCTION TO NANOTECHNOLOGY 5 Units
Advisory: High school science (chemistry, physics, biology, etc); CHEM 30A and 30B.
Not Repeatable.
3 hours lecture, 3 hours lecture-laboratory, 1.5 hours laboratory.
 Introduction to Nanoscience and Nanotechnology, emphasis on nanoscale phenomenon, including novel properties and industrial applications of nanoengineered materials. Review of the history and development of nanotechnology, and synergy of chemistry, physics, and biology. Introduces tools for fabrication, structural characterization, and physical properties measurements. Hands on introduction to Atomic Force Microscopy (AFM) and Scanning Electron Microscopy (SEM). [FHGE: Non-GE; Transferable: CSU]

NANO 51 APPLICATIONS OF NANOTECHNOLOGY 5 Units
Formerly: ENGR 76
Advisory: Not open to students with credit in ENGR 76; High school chemistry, physics, or biology, or college equivalent (CHEM 30A or equivalent; PHYS 10 or equivalent; BIOL 10 or equivalent).
Not Repeatable.
5 hours lecture.
 Introduction to the underlying principles and industrial applications of nanoscience and nanotechnology. Introduces scientific principles and theory relevant at the nanoscale dimension, including the emergence and engineering of novel properties at scale. Overview of current and future applications of nanotechnology in materials engineering, physics, chemistry, biology, electronics and computing, clean energy technology,

and medicine. Introduces the field of nanomaterials engineering from an application design perspective, and serves as the foundation to the integrated nanotechnology program. [FHGE: Non-GE; Transferable: CSU]

NANO 52 NANOMATERIALS & NANOSTRUCTURES 5 Units
Advisory: Knowledge of atomic and molecular structure, basic physical properties of materials, electricity and magnetism, and thermal and electrical conductivity of materials.
Not Repeatable.
5 hours lecture.

Introduction to the fundamental science and technology of nanomaterials, including semiconductors, carbon nanostructures, polymer and composite materials, and high performance metals and alloys. Topics include a review of the periodic table, atomic and electronic structure, chemical bonding and molecular geometry, crystal structure and crystallization, phase diagrams and phase transitions, and semiconduction. Particular emphasis placed on understanding material processes, such as the physics of solids, importance of defects and impurities in material structures, thermal conduction, deformation and plasticity, and electromagnetism. Depending on student interests, advanced topics can include surface chemistry, quantum structures, and fabrication of nanostructures such as carbon nanotubes and organic thin films. [FHGE: Non-GE; Transferable: CSU]

NANO 53 NANOMATERIALS 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.
Not Repeatable.
5 hours lecture.

Techniques for micro and nano characterization of materials, including imaging, structural and surface analysis techniques, and physical properties measurements. Surveys the physics of modern instrumentation involved in characterizing materials, and the typical approaches to analyzing a wide variety of materials and nanostructures. 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 (SEM), Atomic Force Microscope (AFM), Auger Electron Spectroscopy (AES), X-Ray Photoelectron Spectroscopy (XPS), and Raman spectroscopy. [FHGE: Non-GE; Transferable: CSU]

NANO 54 NANOFABRICATION TOOLS & PROCESS 5 Units
Advisory: NANO 52 and NANO 53 or equivalent; students should have a basic knowledge of materials science, physics, and inorganic/organic chemistry.
Not Repeatable.
5 hours lecture.

Introduction to common fabrication techniques used in the synthesis, preparation, and processing of nanostructured materials. Topics include thin film coating and deposition, plasma deposition and surface modification, powder metallurgy, and fabrication of silicon nano and micro structures. Emphasis on safety, process development, monitoring and optimization, and quality control. Students will fabricate and characterize small prototype materials as part of the integrated nanomaterials engineering program. [FHGE: Non-GE; Transferable: CSU]

NANO 55 INTRODUCTION TO MICRO & NANO ELECTRONICS 5 Units
Advisory: NANO 51, 52, 53, ENGR 35, 37, PHYS 4D, MATH 2A or 10.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: 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.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: CSU]

NANO 57 INTRODUCTION TO MICRO & NANO FABRICATION TECHNIQUES 5 Units

Advisory: NANO 51; NANO 52 or equivalent; NANO 54, 55 and 56.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: CSU]

NANO 58 MICRO & NANO FABRICATION TECHNIQUES LABORATORY 5 Units

Advisory: NANO 51, 52, 53, 54, 55, 56 and 57.
Not Repeatable.
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, silicon 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. [FHGE: Non-GE; Transferable: 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.
Not Repeatable.
5 hours lecture.

Examines the convergence of nanotechnology and biotechnology. Investigates biology as a small nanotechnology system, structural and functional principles in bionanotechnology 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. [FHGE: Non-GE; Transferable: CSU]

NANO 60 INTRODUCTION TO CLEAN TECHNOLOGY 5 Units

Advisory: NANO 51; Knowledge of materials science, energy systems, and electricity.
Not Repeatable.
5 hours lecture.

Introduction to the field of clean technology, known as icleantech, 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. [FHGE: Non-GE; Transferable: CSU]

NANO 61 MICRO & NANO FABRICATION TECHNIQUES CAPSTONE 5 Units

Prerequisites: NANO 51, 52,53 and one course from NANO 54-60; consent of supervisory faculty.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: 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. [FHGE: Non-GE; Transferable: Not transferable]

NCBS 401A MATHEMATICAL FOUNDATIONS FOR COLLEGE PART I 0 Units

Non-degree applicable non-credit course.
Unlimited Repeatability.
20 hours total.

This is part one of a bridge to college program that focuses on the development of quantitative thinking skills within the context of: the culture of the college classroom: reading and understanding the syllabus, completing assignments and meeting deadlines, taking quizzes and exams, and classroom communication skills; the assessment of skills without a calculator; exploration of the resources offered by the community college in mathematics; the development of basic mathematical literacy skills to enhance future success in mathematics. Introduction to addition, subtraction, multiplication and division of whole numbers in preparation for basic skills mathematics course. [FHGE: Non-GE; Transferable: Not transferable]

NCBS 401B MATHEMATICAL FOUNDATIONS FOR COLLEGE PART II 0 Units

Non-degree applicable non-credit course.
Prerequisites: NCBS 401A
Unlimited Repeatability.
40 hours total.

This is part two of a bridge to college program that focuses on the development of quantitative thinking skills within the context of: the culture of the college classroom: reading and understanding the syllabus, completing assignments and meeting deadlines, taking quizzes and exams, and classroom communication skills; the assessment of skills without a calculator; exploration of the resources offered by the community college in mathematics; the development of basic mathematical literacy skills to enhance future success in mathematics. Introduction to addition, subtraction, multiplication and division of fractions in preparation for basic skills mathematics course. [FHGE: Non-GE; Transferable: Not transferable]

**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: selecting and registering for classes, reading and understanding the syllabus, completing assignments and meeting deadlines, taking quizzes and test, and classroom communication skills; the assessment of skills, exploration of life paths and the resources offered by the community college; the development of basic digital literacy skills to access information on the Internet. [FHGE: Non-GE; Transferable: Not transferable]

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. [FHGE: Non-GE; Transferable: Not transferable]

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. [FHGE: Non-GE; Transferable: Not transferable]

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. [FHGE: Non-GE; Transferable: Not transferable]

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. [FHGE: Non-GE; Transferable: Not transferable]

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.

Prepares students to care for ambulatory elderly clients in their own homes with focus on basic clientele needs and skills required to meet those needs. Intended for students pursuing a career as a geriatric home aide. Completion of both NCVS 400 and 401 leads to a noncredit certificate in Geriatric Home Aide. [FHGE: Non-GE; Transferable: Not transferable]

NCSV 401 GERIATRIC HOME AIDE - NUTRITION 0 Units

Non-degree applicable non-credit course.
Unlimited Repeatability.
44 hours total.

Prepares 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 NCVS 400 and 401 leads to a noncredit certificate in Geriatric Home Aide. [FHGE: Non-GE; Transferable: Not transferable]

NON-CREDIT: WORK FORCE PREPARATION

Non-Credit (650) 949-6295

NCWP 400 BLUEPRINT FOR WORKPLACE SUCCESS 0 Units

Non-degree applicable non-credit course.
Unlimited Repeatability.
36 hours total.

Provides students with the 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 401, 402 and 403 leads to a Job Readiness Certificate of Completion. [FHGE: Non-GE; Transferable: Not transferable]

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. [FHGE: Non-GE; Transferable: Not transferable]

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 in order to succeed in the workplace focusing on how to participate in a new work environment, to work with customers and new colleagues, how to dress and behave, and how to make a difference as a new employee. Completion of this course in addition to NCWP 400, 401 and 403 leads to a Job Readiness Certificate of Completion. [FHGE: Non-GE; Transferable: Not transferable]

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. [FHGE: Non-GE; Transferable: Not transferable]

PERFORMING ARTS

Fine Arts & Communication (650) 949-7479
www.foothill.edu/fa/

P A 111 PERFORMANCE PRACTICES 2 Units
P A 111X IN THEATRE 4 Units
P A 111Y 6 Units
P A 111Z 8 Units
 Prerequisite: Enrollment subject to audition.
 Advisory: Pass/No Pass.
 May be taken 6 times for credit.
 6 hours lecture-laboratory for each 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. Enrollment is limited to 6 times within the P A 111 group. [FHGE: Non-GE; Transferable: Not transferable]

P A 121 PERFORMANCE PRACTICES IN 2 Units
P A 121X VOCAL MUSIC 4 Units
P A 121Y 6 Units
P A 121Z 8 Units
 Prerequisite: Enrollment subject to audition.
 Advisory: Pass/No Pass.
 May be taken 6 times for credit.
 6 hours laboratory for each 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. Enrollment is limited to 6 times within the P A 121 group. [FHGE: Non-GE; Transferable: Not transferable]

P A 131 PERFORMANCE PRACTICES IN 2 Units
P A 131X INSTRUMENTAL MUSIC 4 Units
P A 131Y 6 Units
P A 131Z 8 Units

Prerequisite: Enrollment subject to audition.
 Advisory: Pass/No Pass.
 May be taken 6 times for credit.
 6 hours laboratory for each 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. Enrollment is limited to 6 times within the P A 131 group. [FHGE: Non-GE; Transferable: Not transferable]

P A 141 PERFORMING ARTS COLLEGIUM 2 Units
P A 141X 4 Units
P A 141Y 6 Units
P A 141Z 8 Units

Prerequisite: Enrollment subject to audition.
 Advisory: Pass/No Pass.
 May be taken 6 times for credit.
 6 hours laboratory for each 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. Enrollment is limited to 6 times within the P A 141 group. [FHGE: Non-GE; Transferable: Not transferable]

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.
 May be taken 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. Enrollment is limited to 6 times within the P A 150 group. [FHGE: Non-GE; Transferable: Not transferable]

P A 161 DIRECTED STUDIES IN THE .5 Unit
P A 161X PERFORMING ARTS 1 Unit
P A 161Y 2 Units
P A 161Z 3 Units

Prerequisite: Enrollment subject to audition.
 Advisory: Pass/No Pass.
 May be taken 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, 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. Enrollment is limited to 6 times within the P A 161 group. [FHGE: Non-GE; Transferable: Not transferable]

PHARMACY TECHNICIAN

Biological & Health Sciences (650) 949-6955
www.foothill.edu/bio/programs/pharmtec/

PHT 50 ORIENTATION TO PHARMACY TECHNOLOGY 3 Units

Prerequisite: Admission to Pharmacy Technology Program.
Not Repeatable.
3 hours lecture.

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. [FHGE: Non-GE; Transferable: CSU]

PHT 51 BASIC PHARMACEUTICS 4 Units

Prerequisite: Admission to the Pharmacy Technology Program.
Not Repeatable.
4 hours lecture.

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. [FHGE: Non-GE; Transferable: CSU]

PHT 52A INPATIENT DISPENSING 3 Units

Prerequisite: Admission to Pharmacy Technology Program.
Not Repeatable.

2 hours lecture, 3 hours laboratory.

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. [FHGE: Non-GE; Transferable: CSU]

PHT 52B ASEPTIC TECHNIQUE & IV PREPARATION 4 Units

Prerequisite: PHT 52A.

Not Repeatable.

3 hours lecture, 3 hours laboratory.

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. [FHGE: Non-GE; Transferable: CSU]

PHT 53 AMBULATORY PHARMACY PRACTICE 4 Units

Prerequisite: Admission to the Pharmacy Technology Program.

Not Repeatable.

3 hours lecture, 3 hours laboratory.

A review of the skills needed to operate effectively in an ambulatory setting, with emphasis on receiving and controlling inventory, processing prescriptions using computerized prescription processing, and medical insurance billing. Customer relations. [FHGE: Non-GE; Transferable: CSU]

PHT 54A DOSAGE CALCULATIONS A 3 Units

Prerequisite: Admission to Pharmacy Technology Program.

Not Repeatable.

3 hours lecture.

An introduction to the use of pharmaceutical measuring systems with emphasis on the metric system and intersystem conversions. [FHGE: Non-GE; Transferable: CSU]

PHT 54B DOSAGE CALCULATIONS B 3 Units

Prerequisite: PHT 54A.

Not Repeatable.

3 hours lecture.

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. Intended for students enrolled in the Pharmacy Technician Program. [FHGE: Non-GE; Transferable: CSU]

PHT 55A PHARMACOLOGY A 6 Units

Prerequisite: PHT 50.

Not Repeatable.

6 hours lecture.

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. [FHGE: Non-GE; Transferable: CSU]

PHT 55B PHARMACOLOGY B 6 Units

Prerequisite: PHT 55A.

Not Repeatable.

6 hours lecture.

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. Intended for students enrolled in the Pharmacy Technician Program. [FHGE: Non-GE; Transferable: CSU]

PHT 56A DISPENSING & COMPOUNDING A 4 Units

Prerequisite: PHT 50.

Not Repeatable.

2 hours lecture, 6 hours laboratory.

General preparation of non-sterile 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. Intended for students enrolled in the Pharmacy Technician Program. [FHGE: Non-GE; Transferable: CSU]

PHT 56B DISPENSING & COMPOUNDING B 3 Units

Prerequisite: PHT 56A.

Not Repeatable.

2 hours lecture, 3 hours laboratory.

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. Intended for students enrolled in the Pharmacy Technician Program. [FHGE: Non-GE; Transferable: CSU]

PHT 60A RETAIL CLINICAL I 1.5 Units

Prerequisite: Admission to the Pharmacy Technology Program.

Not Repeatable.

8 hours clinical experience.

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. [FHGE: Non-GE; Transferable: CSU]

PHT 60B RETAIL CLINICAL II 1.5 Units

Prerequisite: PHT 60A.

Not Repeatable.

8 hours clinical experience.

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. [FHGE: Non-GE; Transferable: CSU]

PHT 61 HOME HEALTH-CARE SUPPLIES 3 Units

Prerequisite: PHT 50.

Not Repeatable.

2 hours lecture, 3 hours laboratory.

Study of diseases and conditions which 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. Intended for students enrolled in the Pharmacy Technician Program. [FHGE: Non-GE; Transferable: CSU]

PHT 62A HOSPITAL CLINICAL I 1.5 Units
Prerequisite: Admission to Pharmacy Technology Program.
Not Repeatable.
8 hours clinical experience.
 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. [FHGE: Non-GE; Transferable: CSU]

PHT 62B HOSPITAL CLINICAL II 1.5 Units
Prerequisite: Admission to Pharmacy Technician Program
Not Repeatable.
8 hours clinical experience.
 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. [FHGE: Non-GE; Transferable: CSU]

PHT 200L PHARMACY TECHNICIAN AS 1 Unit
A CAREER
Non-degree applicable credit course.
Not Repeatable.
1 hour lecture.
 Introduction to the pharmaceutical sciences and the functions of a pharmacy technician in health care. Role of the pharmacy technician, areas of specialization in the field, technical standards, state registration requirements and employment opportunities. [FHGE: Non-GE; Transferable: Not transferable]

PHILOSOPHY

Business & Social Sciences

(650) 949-7322
www.foothill.edu/bss/

PHIL 1 CRITICAL THINKING & WRITING 5 Units
Prerequisite: ENGL 1A.
Not Repeatable.
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. [FHGE: Communication & Analytical Thinking; Transferable: UC/CSU]

PHIL 2 INTRODUCTION TO SOCIAL & POLITICAL PHILOSOPHY 4 Units
Not Repeatable.
4 hours lecture.
 Social and political philosophies of classical, modern and contemporary thinkers. Issues of concern to include the justification and structure of the political state, constitution of government, individual rights and distribution of wealth. [FHGE: Humanities; Transferable: UC/CSU]

PHIL 4 INTRODUCTION TO PHILOSOPHY 4 Units
Not Repeatable.
4 hours lecture.
 Introductory survey of basic principles and concerns of philosophy. Primarily examines major topics in the study of metaphysics and epistemology. Related topics of concern to include ethics, theology and political philosophy. [FHGE: Humanities; Transferable: UC/CSU]

PHIL 7 INTRODUCTION TO SYMBOLIC LOGIC 5 Units
Not Repeatable.
5 hours lecture.
 The course covers the use of logic as a tool for constructing, analyzing and evaluating arguments. Topics to be covered will be the basic construction of premises and conclusion to form arguments, common formal and informal fallacies, categorical propositions and syllogisms, propositional logic, natural deduction and predicate logic. [FHGE: Communication & Analytical Thinking; Transferable: UC/CSU]

PHIL 8 ETHICS 5 Units
Not Repeatable.
5 hours lecture.
 Analysis and application of competing conceptions of the good. Course focuses on ethical theory (utilitarianism, duty-oriented ethics, virtue ethics, egoism, relativism etc.) and various topics in applied ethics. [FHGE: Communication & Analytical Thinking, Humanities; Transferable: UC/CSU]

PHIL 11 INTRODUCTION TO THE PHILOSOPHY OF ART 4 Units
Not Repeatable.
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. [FHGE: Humanities; Transferable: UC/CSU]

PHIL 20A HISTORY OF WESTERN PHILOSOPHY FROM SOCRATES THROUGH ST. THOMAS 4 Units
Not Repeatable.
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. [FHGE: Humanities; Transferable: UC/CSU]

PHIL 20B HISTORY OF WESTERN PHILOSOPHY FROM THE RENAISSANCE THROUGH KANT 4 Units
Not Repeatable.
4 hours lecture.
 Examination of the major European philosophers and philosophic movements of the 17th and 18th centuries. Particular attention to paid to the transition out of the medieval period into the age of enlightenment. [FHGE: Non-GE; Transferable: UC/CSU]

PHIL 20C CONTEMPORARY PHILOSOPHY: 19TH & 20TH CENTURY THOUGHT 4 Units
Advisory: Eligibility for ENGL 1A or ESLL 26.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: UC/CSU]

PHIL 22 INTRODUCTION TO WORLD RELIGIONS: THE SEARCH FOR SPIRITUAL MEANING 4 Units
Not Repeatable.
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. [FHGE: United States Cultures & Communities, Humanities; Transferable: UC/CSU]

PHIL 24 COMPARATIVE WORLD RELIGIONS: EAST 4 Units

Advisory: Eligibility for ENGL 1A or ESLL 26.
Not Repeatable.
4 hours lecture.

Origin, history and significant ideas of the world's major Eastern religions. Particular focus on practice and concepts in Hinduism, Buddhism, Confucianism, Taoism, and Zen. [FHGE: Humanities; Transferable: UC/CSU]

PHIL 25 COMPARATIVE WORLD RELIGIONS: WEST 4 Units

Not Repeatable.
4 hours lecture.

Explores the origin, history and significant ideas of the world's Western religions. We will compare the fundamental insights, ideals and contributions toward the human moral heritage and wisdom of the Early Religions, Judaism, Zoroastrianism, Christianity, and Islam. [FHGE: Humanities; Transferable: UC/CSU]

PHIL 34H HONORS INSTITUTE SEMINAR IN PHILOSOPHY 1 Unit

Formerly: PHIL 34

Prerequisite: Honors Institute participant.

Advisory: Not open to students with credit in PHIL 34.

Not Repeatable.
1 hour lecture.

A seminar in directed readings, discussions and projects in philosophy. Specific topics to be determined by the instructor. [FHGE: Non-GE; Transferable: CSU]

PHIL 35 DEPARTMENT HONORS PROJECTS IN PHILOSOPHY 1 Unit

May be taken 6 times for credit.

1 hour lecture.

Seminar in readings, research, critical techniques and practice. Specific topics vary. [FHGE: Non-GE; Transferable: CSU]

PHIL 50 INTRODUCTION TO CRITICAL THINKING 4 Units

Advisory: Eligibility for ENGL 1A or ESLL 26.

Not Repeatable.

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. [FHGE: Communication & Analytical Thinking; Transferable: UC/CSU]

PHIL 56 SPECIAL PROJECTS IN PHILOSOPHY 1 Unit

PHIL 56X 2 Units

PHIL 56Y 3 Units

PHIL 56Z 4 Units

Formerly: PHIL 36

May be taken 6 times for credit.

1 hour lecture for each unit of credit.

Advanced readings research, and/or project in philosophy. Specific topics determined in consultation with instructor. Enrollment is limited to 6 times within the PHIL 56 group. [FHGE: Non-GE; Transferable: CSU]

PHOTOGRAPHY

Fine Arts & Communication

(650) 949-7318

www.foothill.edu/fa/photo

PHOT 1 BLACK & WHITE PHOTOGRAPHY I 4 Units

Not Repeatable.
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 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. [FHGE: Humanities; Transferable: 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. [FHGE: Non-GE; Transferable: UC/CSU]

PHOT 5 INTRODUCTION TO PHOTOGRAPHY 4 Units

Not Repeatable.

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. [FHGE: Humanities; Transferable: UC/CSU]

PHOT 8 PHOTOGRAPHY OF MULTICULTURAL AMERICA 4 Units

Advisory: Not open to students with credit in PHOT 8H.

Not Repeatable.

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. [FHGE: United States Cultures & Communities, Humanities; Transferable: UC/CSU]

PHOT 8H HONORS PHOTOGRAPHY OF MULTICULTURAL AMERICA 4 Units

Prerequisite: Honors Institute participant.

Advisory: Not open to students with credit in PHOT 8.

Not Repeatable.

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. [FHGE: United States Cultures & Communities, Humanities; Transferable: UC/CSU]

PHOT 10 HISTORY OF PHOTOGRAPHY 4 Units
Advisory: PHOT 1 or equivalent; not open to students with credit in PHOT 10H.
Not Repeatable.
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. [FHGE: Humanities; Transferable: UC/CSU]

PHOT 10H HONORS HISTORY OF PHOTOGRAPHY 4 Units
Prerequisite: Honors Institute participant.
Advisory: PHOT 1 or equivalent; not open to students with credit in PHOT 10.
Not Repeatable.
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. [FHGE: Humanities; Transferable: 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.
Not Repeatable.
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. [FHGE: Humanities; Transferable: UC/CSU]

PHOT 11H HONORS CONTEMPORARY ISSUES IN PHOTOGRAPHY 4 Units
Prerequisite: Honors Institute participant.
Advisory: Not open to students with credit in PHOT 11 or 59.
Not Repeatable.
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 rigorous grading, and more demanding and creative assignments requiring application of higher-level thinking, writing, and communication skills. [FHGE: Humanities; Transferable: UC/CSU]

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. [FHGE: Non-GE; Transferable: 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.
 Exploration of photographic seeing 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. [FHGE: Non-GE; Transferable: UC/CSU]

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 hours laboratory.
 An exploration of the Zone System through 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. [FHGE: Non-GE; Transferable: CSU]

PHOT 55 SPECIAL PROJECTS IN PHOTOGRAPHY 2 Units
Prerequisite: PHOT 2 or 65B.
May be taken 6 times for credit.
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. [FHGE: Non-GE; Transferable: CSU]

PHOT 57A PHOTOGRAPHIC PORTFOLIO DEVELOPMENT 4 Units
Prerequisites: 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. [FHGE: Non-GE; Transferable: CSU]

PHOT 57B PROFESSIONAL PRACTICES IN PHOTOGRAPHY 4 Units
Prerequisites: PHOT 57A or instructor's permission.
Advisory: PHOT 10, 10H, 11 or 11H.
May be taken 3 times for credit.
2 hours lecture, 3 hours lecture-laboratory, 1.5 hours laboratory.
 Organization of photographic work from prior classes and projects to meet individual goals including transfer, exhibition and employment. Development of professional materials such as resume, website 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. [FHGE: Non-GE; Transferable: CSU]

PHOT 63	PHOTOJOURNALISM	4 Units	PHOT 68D	EXPERIMENTAL TOPICS IN PHOTOGRAPHY	1 Unit
<p>Prerequisite: PHOT 2. May be taken 4 times for credit. 2 hours lecture, 3 hours lecture-laboratory, 1.5 hours laboratory. Instruction 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. [FHGE: Non-GE; Transferable: UC/CSU]</p>			<p>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). [FHGE: Non-GE; Transferable: CSU]</p>		
PHOT 65A	DIGITAL PHOTOGRAPHY I	4 Units	PHOT 68E	LECTURE TOPICS IN PHOTOGRAPHY	1 Unit
<p>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. [FHGE: Non-GE; Transferable: CSU]</p>			<p>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). [FHGE: Non-GE; Transferable: CSU]</p>		
PHOT 65B	DIGITAL PHOTOGRAPHY II	4 Units	PHOT 68F	EXHIBITION TOPICS IN PHOTOGRAPHY	1 Unit
<p>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. [FHGE: Non-GE; Transferable: CSU]</p>			<p>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). [FHGE: Non-GE; Transferable: CSU]</p>		
PHOT 65C	DIGITAL PHOTOGRAPHY III	4 Units	PHOT 70	INTRODUCTION TO COLOR PHOTOGRAPHY	4 Units
<p>Advisory: PHOT 65B or equivalent. 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. [FHGE: Non-GE; Transferable: CSU]</p>			<p>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. [FHGE: Non-GE; Transferable: UC/CSU]</p>		
PHOT 68A	DARKROOM TOPICS IN PHOTOGRAPHY	1 Unit	PHOT 71	THE PHOTOGRAPHIC BOOK	4 Units
<p>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). [FHGE: Non-GE; Transferable: CSU]</p>			<p>Prerequisites: 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. [FHGE: Non-GE; Transferable: CSU]</p>		
PHOT 68B	DIGITAL TOPICS IN PHOTOGRAPHY	1 Unit	PHOT 72	DIGITAL CAMERA TECHNIQUE	4 Units
<p>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). [FHGE: Non-GE; Transferable: CSU]</p>			<p>Advisory: PHOT 1 or 5 or equivalent experience. Not Repeatable. 3 hours lecture, 2 hours lecture-laboratory. Develop skills in the use of digital cameras and software. Evaluate and utilize current tools and demonstrate skills in digital photography including workflow, archiving, resolution/sizing, beginning color management as well as composition, design and visual communication. Utilize design principles to create images that communicate effectively. [FHGE: Non-GE; Transferable: CSU]</p>		
PHOT 68C	STUDIO LIGHTING TOPICS IN PHOTOGRAPHY	1 Unit	PHOT 74	STUDIO PHOTOGRAPHY TECHNIQUES	4 Units
<p>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). [FHGE: Non-GE; Transferable: CSU]</p>			<p>Prerequisites: 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. [FHGE: Non-GE; Transferable: CSU]</p>		

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. [FHGE: Non-GE; Transferable: 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. [FHGE: Non-GE; Transferable: 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. [FHGE: Non-GE; Transferable: 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. [FHGE: Non-GE; Transferable: 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. [FHGE: Non-GE; Transferable: CSU]

PHOT 150X PHOTOGRAPHY PRODUCTION LABORATORY 1 Unit
Corequisite: Concurrent enrollment in a photography course requiring laboratory access.
May be taken 6 times for credit.
4 hours laboratory.
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. [FHGE: Non-GE; Transferable: Not transferable]

PHOT 180 PHOTOGRAPHIC PRACTICES 1 Unit
Corequisite: Concurrent enrollment in a photography course requiring laboratory access or by instructor referral.
May be taken 6 times for credit.
4 hours laboratory.
Supervised use of photographic studio and darkroom equipment for projects assigned in still photography courses, including basic, intermediate, advanced, color, digital, and special project courses. Hours to be arranged within scheduled availability of photography department open facilities. [FHGE: Non-GE; Transferable: Not transferable]

PHOT 190 DIRECTED STUDY .5 Unit
PHOT 190X 1 Unit
PHOT 190Y 2 Units
PHOT 190Z 3 Units
Prerequisite: PHOT 1 or 5 or equivalent.
May be taken 6 times for credit.
.5 hour lecture for each .5 unit of credit.
Directed study for students who desire or require additional help in attaining comprehension and competency in learning skills in a photographic area. Enrollment is limited to 6 times within the PHOT 190 group. [FHGE: Non-GE; Transferable: Not transferable]

PHYSICAL EDUCATION

Physical Education (650) 949-7742
www.foothill.edu/ath/

PHED 1 INTRODUCTION TO PHYSICAL EDUCATION AS A PROFESSION 4 Units
Advisory: Not open to students with credit in H P 1.
Not Repeatable.
4 hours lecture.
Introduction to the general nature of the physical education profession and its related fields of health, recreation and athletics. [FHGE: Non-GE; Transferable: UC/CSU]

PHED 2 SPORT IN SOCIETY 4 Units
Advisory: Not open to students with credit in H P 1B.
Not Repeatable.
4 hours lecture.
This course looks at current and past sports related cultural and historical issues and practices to study the role of sport in society. [FHGE: Non-GE; Transferable: UC/CSU]

PHED 3 THEORIES & TECHNIQUES OF COACHING SPORTS 4 Units
Advisory: Not open to students with credit in H P 37.
Not Repeatable.
4 hours lecture.
Instruction in the theories and techniques of coaching sport and its variables which contribute to team performance and success. This course addresses developing a coaching philosophy, sport psychology, sport pedagogy, sport physiology and sport management. [FHGE: Non-GE; Transferable: UC/CSU]

PHED 4 CONCEPTS OF PHYSICAL FITNESS & WELLNESS 4 Units
Advisory: Not open to students with credit in H P 48.
Not Repeatable.
4 hours lecture.
Study of physical fitness, training principles, appropriate exercise and health practices with application to lifelong health and exercise habits. [FHGE: Lifelong Understanding; Transferable: UC/CSU]

PHED 5 FUNDAMENTALS OF HATHA YOGA 4 Units
Advisory: Not open to students with credit in H P 44H.
Not Repeatable.
4 hours lecture.
Fundamentals of Hatha Yoga is an in depth survey and scientific analysis of the techniques and principles of various styles of Hatha Yoga. Ideal for instructors preparing for certification, and students wishing to deepen their personal practice. [FHGE: Lifelong Understanding; Transferable: UC/CSU]

<p>PHED 6 PERFORMANCE ENHANCING SUBSTANCES IN SPORT & EXERCISE 4 Units</p> <p>Not Repeatable. 4 hours lecture. This course addresses current and historical issues as well as general social, biochemical and behavioral information related to performance enhancing substances in sport and exercise. Areas to be addressed include, but are not limited to: Anabolics, Blood Doping, Diuretics, Nutritional Ergogenic Aids, Social and Recreational Drugs, Stimulants, Emerging Science and Technologies, and Drug Testing. [FHGE: Non-GE; Transferable: UC/CSU]</p>	<p>PHED 11B AQUATIC FITNESS 1 Unit</p> <p>May be taken 6 times for credit. 3 hours laboratory. An aerobic water fitness program applying the basic principles of exercise and dynamics of water movement. Enrollment is limited to 6 times within the PHED 11 group. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>
<p>PHED 8 THEORY & CONCEPTS OF EXERCISE PHYSIOLOGY 4 Units</p> <p>Not Repeatable. 4 hours lecture. Basic concepts and principles of exercise science and how the human body responds to the demands of physical activity. Emphasis on anatomy, physiology, and biomechanics. Includes factors related to maintaining optimal body weight, nutrition, and increasing one's flexibility. [FHGE: Non-GE; Transferable: UC/CSU]</p>	<p>PHED 13A INTERMEDIATE/ADVANCED WATER POLO 1 Unit</p> <p>May be taken 6 times for credit. 3 hours laboratory. Intermediate/advanced water polo for competitive play. Includes offensive and defensive drills, strategies, and techniques. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>
<p>PHED 9 BASIC NUTRITION FOR SPORTS & FITNESS 4 Units</p> <p>Not Repeatable. 4 hours lecture. Practical applications of basic nutrition concepts and how food choices affect health and fitness. Includes computer utilization of personal dietary analysis and evaluation. Standard food guides and guidelines to select foods that would maximize individual health are utilized in this course. [FHGE: Non-GE; Transferable: UC/CSU]</p>	<p>PHED 17A BEGINNING KARATE 1 Unit</p> <p>May be taken 6 times for credit. 3 hours laboratory. Introduction to beginning skills and techniques of karate. Includes punching, blocking, striking and kicking techniques. Enrollment is limited to 6 times within the PHED 17 group. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>
<p>PHED 10A AQUATICS: LEVEL I, BEGINNING SWIMMING 1 Unit</p> <p>May be taken 6 times for credit. 3 hours laboratory. Introduction to swimming and safety skills. Includes physical and mental adjustment to water, buoyancy and body position, survival skills, and basic swim strokes. Enrollment is limited to 6 times within the PHED 10 group. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>	<p>PHED 17B INTERMEDIATE KARATE 1 Unit</p> <p>Prerequisite: PHED 17A or equivalent. May be taken 6 times for credit. 3 hours laboratory. Intermediate karate skills and techniques. Analysis and application of biomechanics, individual and group interaction, and uses of Karate. Enrollment is limited to 6 times within the PHED 17 group. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>
<p>PHED 10B AQUATICS: LEVEL II, INTERMEDIATE SWIMMING 1 Unit</p> <p>May be taken 6 times for credit. 3 hours laboratory. A continuation of development of swim and safety skills beyond the beginning phase. Includes physical and mental adjustment to water, buoyancy and body position, survival skills, and the basic swim strokes. Enrollment is limited to 6 times within the PHED 10 group. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>	<p>PHED 19A FUNDAMENTALS OF TAI CHI 1 Unit</p> <p>May be taken 6 times for credit. 3 hours laboratory. 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. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>
<p>PHED 10C AQUATICS LEVEL III, MASTERS SWIMMING/ADVANCED SWIM TRAINING 1 Unit</p> <p>May be taken 6 times for credit. 3 hours laboratory. Advanced program of swim strokes, competitive turns, and endurance training. Enrollment is limited to 6 times within the PHED 10 group. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>	<p>PHED 19B KICKBOXING FOR FITNESS 1 Unit</p> <p>May be taken 3 times for credit. 3 hours laboratory. 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. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>
<p>PHED 11A WATER EXERCISE 1 Unit</p> <p>May be taken 6 times for credit. 3 hours laboratory. A unique non-impact form of aquatic exercise designed to improve cardiovascular endurance, muscular strength, endurance, and flexibility while wearing a flotation belt to maintain an upright position in deep water. Enrollment is limited to 6 times within the PHED 11 group. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>	<p>PHED 20A BEGINNING MAT PILATES 1 Unit</p> <p>May be taken 6 times for credit. 3 hours laboratory. Traditional Mat Pilates exercises and principles are combined to achieve body control, core strength and joint mobility. Students must provide their own fitness mat. Enrollment is limited to 6 times within the PHED 20 group. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>
	<p>PHED 20B INTERMEDIATE MAT PILATES 1 Unit</p> <p>May be taken 6 times for credit. 3 hours laboratory. 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. Enrollment is limited to 6 times within the PHED 20 group. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>

PHED 20C	POWER PILATES & FLEXIBILITY EXERCISES	1 Unit	PHED 22A	STRETCHING & PILATES FOR FLEXIBILITY	1 Unit
<p>May be taken 6 times for credit. 3 hours laboratory. A vigorous and dynamic full body conditioning class using mat and standing exercises to tighten, tone and lengthen core muscles and flexibility exercises to improve mobility and stability. Students must provide their own fitness mat. Enrollment is limited to 6 times within the PHED 20 group. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>			<p>May be taken 6 times for credit. 3 hours laboratory. 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. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>		
PHED 21A	BEGINNING HATHA YOGA	1 Unit	PHED 22B	PILATES & YOGA	1 Unit
<p>May be taken 6 times for credit. 3 hours laboratory. 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. Enrollment is limited to 6 times within the PHED 21 group. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>			<p>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. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>		
PHED 21AS	BEGINNING HATHA YOGA	.5 Unit	PHED 22C	CORE FLOW STRENGTH	1 Unit
<p>May be taken 6 times for credit. 1.5 hours laboratory. 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. [FHGE: Non-GE; Transferable: UC/CSU]</p>			<p>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. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>		
PHED 21AT	BEGINNING HATHA YOGA	.5 Unit	PHED 23A	TRAIL HIKING	1 Unit
<p>May be taken 6 times for credit. 1.5 hours laboratory. 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. [FHGE: Non-GE; Transferable: UC/CSU]</p>			<p>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. Enrollment is limited to 6 times within the PHED 23 group. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>		
PHED 21B	INTERMEDIATE HATHA YOGA	1 Unit	PHED 23B	DAY HIKING	1 Unit
<p>Advisory: Some beginning Hatha yoga is recommended. May be taken 6 times for credit. 3 hours laboratory. Intermediate training in Hatha yoga, skills and techniques; independent, group, and personalized training; emphasis on asana practice and pranayama. Enrollment is limited to 6 times within the PHED 21 group. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>			<p>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. Enrollment is limited to 6 times within the PHED 23 group. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>		
PHED 21C	POWER YOGA	1 Unit	PHED 23C	MULTI-DAY HIKING	2 Units
<p>May be taken 6 times for credit. 3 hours laboratory. 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. Enrollment is limited to 6 times within the PHED 21 group. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>			<p>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.) Enrollment is limited to 6 times within the PHED 23 group. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>		
PHED 21D	VINYASA FLOW YOGA	1 Unit	PHED 24	INTRODUCTION TO GOLF	1 Unit
<p>May be taken 6 times for credit. 3 hours laboratory. 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. Enrollment is limited to 6 times within the PHED 21 group. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>			<p>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. Enrollment is limited to 6 times within the PHED 24 group. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>		
PHED 22	FULL-BODY FLEXIBILITY	1 Unit	PHED 24A	SKILL DEVELOPMENT FOR THE EXPERIENCED GOLFER	1 Unit
<p>May be taken 6 times for credit. 3 hours laboratory. 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. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>			<p>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. Enrollment is limited to 6 times within the PHED 24 group. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>		

<p>PHED 24B SKILLS OF GOLF COURSE PLAY 2 Units 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. Enrollment is limited to 6 times within the PHED 24 group. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>	<p>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. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>
<p>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. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>	<p>PHED 34A INTERCOLLEGIATE SOCCER (WOMEN) 3 Units May be taken 6 times for credit. Fourteen and .5 hours lecture-laboratory. Competitive intercollegiate soccer working toward personal development, athletic scholarship, and career opportunities. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>
<p>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. Enrollment is limited to 6 times within the PHED 26 group. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>	<p>PHED 34B INTERCOLLEGIATE VOLLEYBALL (WOMEN) 3 Units May be taken 6 times for credit. Fourteen and .5 hours lecture-laboratory. Competitive intercollegiate volleyball working toward personal development, athletic scholarship, and career opportunities. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>
<p>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. Enrollment is limited to 6 times within the PHED 26 group. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>	<p>PHED 34C INTERCOLLEGIATE BASKETBALL (WOMEN) 3 Units May be taken 6 times for credit. Fourteen and .5 hours lecture-laboratory. Competitive intercollegiate women's basketball working toward personal development, athletic scholarship, and career opportunities. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>
<p>PHED 27 WALK FOR HEALTH 1 Unit 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. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>	<p>PHED 34D INTERCOLLEGIATE TENNIS (WOMEN) 3 Units May be taken 6 times for credit. Fourteen and .5 hour lecture-laboratory. Competitive intercollegiate tennis working toward personal development, athletic scholarship, and career opportunities. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>
<p>PHED 27A RUN FOR FITNESS 1 Unit 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. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>	<p>PHED 34E INTERCOLLEGIATE SOFTBALL (WOMEN) 3 Units Advisory: Previous high school, club or collegiate softball playing experience. May be taken 6 times for credit. Fourteen and .5 hours lecture-laboratory. Competitive intercollegiate softball for experienced female athletes. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>
<p>PHED 28 SLOW PITCH SOFTBALL 1 Unit May be taken 6 times for credit. 3 hours laboratory. Coeducational softball games with instruction in throwing, fielding and hitting. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>	<p>PHED 34F INTERCOLLEGIATE GOLF (WOMEN) 3 Units 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. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>
<p>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. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>	<p>PHED 34G INTERCOLLEGIATE DANCE PERFORMANCE 3 Units Advisory: Not open to students with credit in DANC 11. 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. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>
<p>PHED 29A TOURNAMENT SOCCER 1 Unit 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. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>	<p>PHED 34H PRE-SEASON CONDITIONING 2 Units 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. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>

PHED 34J	SPORTS TECHNIQUES & CONDITIONING	2 Units	PHED 38A	BASKETBALL FUNDAMENTALS	1 Unit
<p><i>Formerly: PHED 601</i> 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. [FHGE: Humanities; Transferable: UC/CSU]</p>			<p>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. Enrollment is limited to 6 times within the PHED 38 group. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>		
PHED 35A	INTERCOLLEGIATE SOCCER (MEN)	3 Units	PHED 38B	BASKETBALL GAME SKILLS	1 Unit
<p>May be taken 6 times for credit. Fourteen and .5 hours lecture-laboratory. Competitive intercollegiate soccer working toward personal development, athletic scholarship and career opportunities. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>			<p>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. Enrollment is limited to 6 times within the PHED 38 group. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>		
PHED 35B	INTERCOLLEGIATE FOOTBALL (MEN)	3 Units	PHED 39	INDOOR SOCCER	1 Unit
<p>May be taken 6 times for credit. Fourteen and .5 hours lecture-laboratory. Competitive intercollegiate football working toward personal development, athletic scholarship and career opportunities. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>			<p>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. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>		
PHED 35C	INTERCOLLEGIATE BASKETBALL (MEN)	3 Units	PHED 40	BEGINNING VOLLEYBALL	1 Unit
<p>May be taken 6 times for credit. Fourteen and .5 hours lecture-laboratory. Competitive intercollegiate basketball working toward personal development, athletic scholarship and career opportunities. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>			<p>May be taken 6 times for credit. 3 hours laboratory. Introduction to the game of volleyball. Includes basic skills, strategy, and team play. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>		
PHED 35D	INTERCOLLEGIATE TENNIS (MEN)	3 Units	PHED 41	INDOOR CYCLING-SPIN	1 Unit
<p>May be taken 6 times for credit. Fourteen and .5 hours lecture-laboratory. Competitive intercollegiate tennis working toward personal development, athletic scholarship, and career opportunities. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>			<p>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. Enrollment is limited to 6 times within the PHED 41 group. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>		
PHED 35E	INTERCOLLEGIATE GOLF (MEN)	3 Units	PHED 41A	CARDIO INTERVALS: HILLS & SPRINTS	1 Unit
<p>May be taken 4 times for credit. Fourteen and .5 hours lecture-laboratory. Competitive intercollegiate golf working toward skill development, athletic scholarship and career opportunities. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>			<p>May be taken 6 times for credit. 3 hours laboratory. Cardio interval exercise set to appropriate cadence music on an indoor bicycle with periods of aerobic and anaerobic work mixed with appropriate recovery periods. Enrollment is limited to 6 times within the PHED 41 group. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>		
PHED 35F	INTERCOLLEGIATE SWIMMING (MEN & WOMEN)	3 Units	PHED 42	BOWLING FOR FITNESS	1 Unit
<p>May be taken 6 times for credit. Fourteen and .5 hours lecture-laboratory. Competitive intercollegiate swimming program for student athletes working on skill development, athletic scholarship and career opportunities. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>			<p>May be taken 6 times for credit. 3 hours laboratory. A comprehensive study of the physical skills and practice for lifetime enjoyment of bowling. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>		
PHED 35G	INTERCOLLEGIATE WATER POLO	3 Units	PHED 45	FITNESS FOR LIFE	1 Unit
<p>May be taken 6 times for credit. Fourteen and .5 hours lecture-laboratory. Competitive intercollegiate water polo working toward personal development, athletic scholarship and career opportunities. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>			PHED 45X		2 Units
PHED 36	INDOOR ARCHERY	1 Unit	<p>May be taken 6 times for credit. 3 hours laboratory. The course is designed to increase muscle strength, endurance and cardiovascular fitness through self paced program of use on cardio, strength and fitness machines. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>		
<p>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. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>			PHED 46	WEIGHT LIFTING FOR HEALTH & FITNESS	1 Unit
PHED 37	BADMINTON: SINGLES & DOUBLES	1 Unit	<p>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. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>		
<p>May be taken 6 times for credit. 3 hours laboratory. Strategy and competition for both singles and doubles in badminton play. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>					

<p>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. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>	<p>PHED 62A CLINICAL EXPERIENCES IN SPORTS MEDICINE I 3 Units 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. [FHGE: Non-GE; Transferable: CSU]</p>
<p>PHED 47B THIGHS, ABS & GLUTEUS (TAG) 1 Unit 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. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>	<p>PHED 62B CLINICAL EXPERIENCES IN SPORTS MEDICINE II 3 Units 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. [FHGE: Non-GE; Transferable: CSU]</p>
<p>PHED 47C CARDIO PUMP 1 Unit 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. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>	<p>PHED 62C CLINICAL EXPERIENCES IN SPORTS MEDICINE III 3 Units Prerequisites: 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. [FHGE: Non-GE; Transferable: CSU]</p>
<p>PHED 49A SURVIVOR TRAINING 1 Unit 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. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>	<p>PHED 62D CLINICAL EXPERIENCES IN SPORTS MEDICINE IV 3 Units Prerequisites: PHED 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. [FHGE: Non-GE; Transferable: CSU]</p>
<p>PHED 49B BOOT CAMP TRAINING 1 Unit 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. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>	<p>PHED 62E CLINICAL EXPERIENCES IN SPORTS MEDICINE V 3 Units Prerequisites: PHED 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 other related allied health settings compliment the on-campus Athletic Treatment Center. [FHGE: Non-GE; Transferable: CSU]</p>
<p>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 workout programs for lifetime fitness. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>	
<p>PHED 52 GOLF ACTIVITIES 1 Unit May be taken 6 times for credit. 1 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. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>	
<p>PHED 53 HEALTH & FITNESS ACTIVITIES 1 Unit May be taken 6 times for credit. 1 hour laboratory. Year long course designed to develop and increase health and fitness using cardio, strength and flexibility training. [FHGE: Lifelong Understanding; Transferable: UC/CSU]</p>	
<p>PHED 60 SPECIAL PROJECTS IN PHYSICAL EDUCATION 2 Units 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. [FHGE: Non-GE; Transferable: CSU]</p>	

PHED 65A PNF: INTRODUCTION TO THE UPPER EXTREMITY 3 Units

Advisory: Not open to students with credit in H P 52F. **Not Repeatable.**

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. [FHGE: Non-GE; Transferable: CSU]

PHED 65B PNF: INTRODUCTION TO THE LOWER EXTREMITY 3 Units

Advisory: Not open to students with credit in H P 52G. **Not Repeatable.**

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. [FHGE: Non-GE; Transferable: CSU]

PHED 66 FIRST AID & CPR/AED 2 Units

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. [FHGE: Non-GE; Transferable: UC/CSU]

PHED 67A PREVENTION OF ATHLETIC INJURIES 3 Units

Advisory: Not open to students with credit in H P 67A. **Not Repeatable.**

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. [FHGE: Non-GE; Transferable: UC/CSU]

PHED 67B EMERGENCY ATHLETIC INJURY CARE 3 Units

Advisory: Not open to students with credit in H P 67B. **Not Repeatable.**

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. [FHGE: Non-GE; Transferable: UC/CSU]

PHED 67C TREATMENT & REHABILITATION OF ATHLETIC INJURIES 3 Units

Advisory: Not open to students with credit in H P 67C. **Not Repeatable.**

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. [FHGE: Non-GE; Transferable: 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. [FHGE: Non-GE; Transferable: CSU]

PHYSICAL SCIENCES & ENGINEERING

**Physical Sciences, Mathematics & Engineering (650) 949-7259
www.foothill.edu/**

PSE 41 CLASS PRACTICES: MIDDLE SCHOOL SCIENCE 2 Units

Prerequisites: Satisfactory score on the mathematics placement test or MATH 105 or 108; college level chemistry or physics course; recommendation from a math, physics, or chemistry faculty; approval by the instructor; participation in an interview session; 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.

Not Repeatable.

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. Students are placed in local middle school classrooms to observe, participate, and assist a mentor teacher in instruction. Students also participate in a weekly seminar where relevant topics in education are discussed. Foothill students are expected to work a minimum of 18 hours (2 hrs/week x 9 weeks; will be adjusted for middle school calendar as required) in the middle school classroom during the quarter. Students will observe a successful and experienced mentor teacher, assist the mentor teacher, and provide support to ensure a positive classroom environment conducive to learning. [FHGE: Non-GE; Transferable: UC/CSU]

PSE 42 CLASS PRACTICES: ELEMENTARY SCHOOL SCIENCE 2 Units

Prerequisites: PSE 41; Satisfactory score on the mathematics placement test or MATH 105 or 108; college level chemistry or physics course; recommendation from a math, physics, or chemistry faculty; approval by the instructor; participation in an interview session; 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.

Not Repeatable.

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. Students are placed in local elementary school classrooms to observe, participate, and assist a mentor teacher in instruction. Students also participate in a weekly seminar where relevant topics in education are discussed. Foothill students are expected to work a minimum of 18 hours (2 hrs/week x 9 weeks; will be adjusted for elementary school calendar as required) in the elementary school classroom during the quarter. Students will observe a successful and experienced mentor teacher, assist the mentor teacher, and provide support to ensure a positive classroom environment conducive to learning. [FHGE: Non-GE; Transferable: UC/CSU]

PSE 43 CLASS PRACTICES: HIGH SCHOOL SCIENCE 2 Units

Prerequisites: Must participate in an interview session; satisfactory score on the mathematics placement test or MATH 105 or 108; 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 18 hours (2 hrs/week x 9 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. [FHGE: Non-GE; Transferable: UC/CSU]

PSE 111 PASS THE TORCH TEAM LEADER TRAINING 1 Unit

Prerequisites: An earned A or B+ grade with instructor recommendation in one of the following: MATH 220, 105, 10, 49, 51, 1A, 1B, 1C, 1D, 2A, 2B or a "Pass" in MATH 230; student must currently be a team leader for a Pass the Torch study team.

May be taken 2 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 instructor assignments and, when applicable, content-specific suggestions from the member's instructor. [FHGE: Non-GE; Transferable: Not transferable]

PSE 301 CAREER DEVELOPMENT THROUGH .5 Unit
PSE 301X CLASSROOM OBSERVATIONS 1 Unit
PSE 301Y 1.5 Units
PSE 301Z 2 Units

Non-degree applicable credit course.

May be taken 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. Enrollment is limited to 6 times within the PSE 301 group. [FHGE: Non-GE; Transferable: Not transferable]

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 determine by instructor. [FHGE: Non-GE; Transferable: Not transferable]

PHYSICS

Physical Sciences, Mathematics & Engineering (650) 949-7259
www.foothill.edu/psme/

PHYS 2A GENERAL PHYSICS 5 Units

Prerequisite: MATH 48B or higher placement on the Foothill College Placement Exam.

Not Repeatable.

4 hours lecture, 1 hour lecture-laboratory, 2 hours laboratory.

Lectures, demonstrations, and problems in mechanics; properties of matter. [FHGE: Natural Sciences; Transferable: UC/CSU]

PHYS 2B GENERAL PHYSICS 5 Units

Prerequisite: PHYS 2A.

Not Repeatable.

4 hours lecture, 1 hour lecture-laboratory, 2 hours laboratory.

Lectures, demonstrations, and problems in thermal physics; electricity and magnetism. [FHGE: Non-GE; Transferable: UC/CSU]

PHYS 2C GENERAL PHYSICS 5 Units

Prerequisite: PHYS 2B.

Not Repeatable.

4 hours lecture, 1 hour lecture-laboratory, 2 hours laboratory.

Lectures, demonstrations, and problems in waves; optics; introductory quantum mechanics; atomic physics; and nuclear physics. [FHGE: Non-GE; Transferable: UC/CSU]

PHYS 4A GENERAL PHYSICS (CALCULUS) 6 Units

Prerequisites: High school physics or PHYS 6 (highly recommended), or PHYS 2A.

Advisory: Not open to students that have credit in PHYS 5A and 5B.

Corequisite: Completion of or concurrent enrollment in MATH 1B.

Not Repeatable.

5 hours lecture, 1 hour lecture-laboratory, 2 hours laboratory.

Mathematics-physics interrelationships, classical Newtonian mechanics. [FHGE: Natural Sciences; Transferable: UC/CSU]

PHYS 4B GENERAL PHYSICS (CALCULUS) 6 Units

Prerequisites: PHYS 4A.

Corequisite: Completion of or concurrent enrollment in MATH 1C.

Not Repeatable.

5 hours lecture, 1 hour lecture-laboratory, 2 hours laboratory.

Classical electricity and magnetism. [FHGE: Non-GE; Transferable: UC/CSU]

PHYS 4C GENERAL PHYSICS (CALCULUS) 6 Units

Prerequisites: PHYS 4B or PHYS 5A, 5B and 5C.

Corequisite: Completion of or concurrent enrollment in MATH 1C.

Not Repeatable.

5 hours lecture, 1 hour lecture-laboratory, 2 hours laboratory.

Thermodynamics; mechanical, acoustical, and electromagnetic waves; optics. [FHGE: Non-GE; Transferable: UC/CSU]

PHYS 4D GENERAL PHYSICS (CALCULUS) 6 Units

Prerequisites: PHYS 4C.

Corequisite: Completion of or concurrent enrollment in MATH 2A.

Not Repeatable.

5 hours lecture, 1 hour lecture-laboratory, 2 hours laboratory.

Special relativity, statistical mechanics, quantum mechanics, atomic physics, nuclear physics, particle physics. [FHGE: Non-GE; Transferable: UC/CSU]

PHYS 5A GENERAL PHYSICS (CALCULUS) EXTENDED 6 Units

Prerequisite: High school physics or PHYS 6 (highly recommended), or PHYS 2A.

Corequisite: Completion of or concurrent enrollment in MATH 1B.

Not Repeatable.

5 hours lecture, 1 hour lecture-laboratory, 2 hours laboratory.

Mathematics-physics interrelationships, classical Newtonian mechanics. PHYS 5A+5B+5C is designed to provide the same content as PHYS 4A+4B, at a slower pace. [FHGE: Natural Sciences; Transferable: UC/CSU]

PHYS 5B GENERAL PHYSICS (CALCULUS) EXTENDED 6 Units

Prerequisite: PHYS 5A.

Corequisite: Completion of or concurrent enrollment in MATH 1C.

Not Repeatable.

5 hours lecture, 1 hour lecture-laboratory, 2 hours laboratory.

Mathematics-physics interrelationships, classical Newtonian mechanics and Electricity. PHYS 5A+5B+5C is designed to provide the same content as PHYS 4A+4B, at a slower pace. [FHGE: Non-GE; Transferable: UC/CSU]

PHYS 5C GENERAL PHYSICS (CALCULUS) EXTENDED 6 Units

Prerequisite: PHYS 5B.

Corequisite: Completion of or concurrent enrollment in MATH 1C.

Not Repeatable.

5 hours lecture, one lecture-laboratory, 2 hours laboratory.

Classical electricity and magnetism. PHYS 5A+5B+5C is designed to provide the same content as PHYS 4A+4B, at a slower pace. [FHGE: Non-GE; Transferable: UC/CSU]

PHYS 6 INTRODUCTORY PHYSICS 5 Units
Prerequisites: Satisfactory score on the mathematics placement test or MATH 48C.
Not Repeatable.
5 hours lecture.
 Lectures, demonstrations, and problems in mechanics, electricity and magnetism. [FHGE: Non-GE; Transferable: UC/CSU]

PHYS 12 INTRODUCTION TO MODERN PHYSICS 5 Units
Not Repeatable.
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. We also examine (briefly) the impact these physics ideas have had on other fields, such as poetry, literature and music. No background in science or math is assumed. [FHGE: Non-GE; Transferable: UC/CSU]

PHYS 34H HONORS INSTITUTE SEMINAR IN PHYSICS 1 Unit
Formerly: PHYS 34
Prerequisite: Honors Institute participant.
Advisory: Not open to students with credit in PHYS 34.
May be taken 3 times for credit.
1 hour lecture.
 A seminar in directed readings, discussions and projects in physics. Specific topics to be determined by the instructor. [FHGE: Non-GE; Transferable: CSU]

PHYS 36 SPECIAL PROJECTS IN PHYSICS 1 Unit
PHYS 36X 2 Units
PHYS 36Y 3 Units
Advisory: Previous experience in physics.
May be taken 6 times for credit.
3 hours laboratory for each unit of credit.
 Advanced readings and projects in physics. Specific projects determined on consultation with instructor. Written reports required. Enrollment generally limited to those students enrolled in the PHYS 4 sequence. Enrollment is limited to 6 times within the PHYS 36 group. [FHGE: Non-GE; Transferable: CSU]

PHYS 100 PHYSICS STUDENT ASSISTANCE .5 Unit
PHYS 100X 1 Unit
PHYS 100Y 2 Units
Advisory: Pass/No Pass.
Corequisites: Concurrent enrollment in any physics course.
May be taken 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 physics courses which is beyond the time allocated to the course. Enrollment is limited to 6 times within the PHYS 100 group. [FHGE: Non-GE; Transferable: Not transferable]

POLITICAL SCIENCE

Business & Social Sciences

(650) 949-7322
www.foothill.edu/bss/

POLI 1 POLITICAL SCIENCE: INTRODUCTION TO AMERICAN GOVERNMENT & POLITICS 5 Units

Advisory: Eligibility for ENGL 1A or ESLL 26.
Not Repeatable.
5 hours lecture.

Contemporary analysis of the structure and function of American Government, its constitutional and political systems at the federal, state and local levels. Focus on the following topics: paradigms in the social sciences, models of justice and models of democracy, evolution of American elites and American constitutionalism, role of media in American political culture, political parties and political socialization, concept of the separation of powers: legislative, executive and judiciary branches, protest and protest movements, Civil Rights Acts of 1964 and 1991. [FHGE: Social & Behavioral Sciences; Transferable: UC/CSU]

POLI 2 COMPARATIVE GOVERNMENT & POLITICS 4 Units

Advisory: Eligibility for ENGL 1A or ESLL 26; not open to students with credit in POLI 2H.
Not Repeatable.
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. [FHGE: Social & Behavioral Sciences; Transferable: UC/CSU]

POLI 2H HONORS COMPARATIVE GOVERNMENT & POLITICS 4 Units

Prerequisites: Eligibility for ENGL 1A or ESLL 26; Honors Institute participant.
Advisory: Not open to students with credit in POLI 2.
Not Repeatable.
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. [FHGE: Social & Behavioral Sciences; Transferable: UC/CSU]

POLI 3 INTRODUCTION TO POLITICAL PHILOSOPHY/POLITICAL THEORY 5 Units

Advisory: Eligibility for ENGL 1A or ESLL 26; not open to students with credit in POLI 3H.
Not Repeatable.
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. [FHGE: Social & Behavioral Sciences; Transferable: UC/CSU]

POLI 3H HONORS INTRODUCTION TO POLITICAL PHILOSOPHY/POLITICAL THEORY 5 Units

Prerequisites: Eligibility for ENGL 1A or ESLL 26; Honors Institute participant.

Advisory: Not open to students with credit in POLI 3.

Not Repeatable.

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 oral class presentations, group discussions and interactions. [FHGE: Social & Behavioral Sciences; Transferable: UC/CSU]

POLI 9 POLITICAL ECONOMY 4 Units

Advisory: Not open to students with credit in ECON 9 or POLI 9H.

Not Repeatable.

4 hours lecture.

Analysis of the contending theoretical formulations of International Political Economy (IPE) emphasizing the interconnection between economics and politics in the broad context of a global economy and the formulation of national public policy. Economic and political Policy issues of current national and international significance are emphasized. [FHGE: Social & Behavioral Sciences; Transferable: 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 ESLL 26 recommended.

Not Repeatable.

4 hours lecture.

Analysis of the contending theoretical formulations of International Political Economy (IPE) emphasizing the interconnection between economics and politics in the broad context of a global economy and the formulation of national public policy. Economic and political Policy issues of current national and international significance are 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. [FHGE: Non-GE; Transferable: UC/CSU]

POLI 15 INTERNATIONAL RELATIONS/WORLD POLITICS 4 Units

Advisory: Eligibility for ENGL 1A or ESLL 26; not open to students with credit in POLI 15H.

Not Repeatable.

4 hours lecture.

Analysis of the central elements of international relations including: contending theoretical formulations of international relations, factors of sovereignty, nationalism, relations between the core, semi-periphery and peripheral countries, the role of the World Trade Organization in international trade relations, international terrorism and global warming. The international struggle for global hegemony and the impact of terrorism on world politics are systematically analyzed in the context of an increasingly unipolar world. [FHGE: Social & Behavioral Sciences; Transferable: UC/CSU]

POLI 15H HONORS INTERNATIONAL RELATIONS/WORLD POLITICS 4 Units

Prerequisites: Eligibility for ENGL 1A or ESLL 26; Honors Institute participant.

Advisory: Not open to students with credit in POLI 15.

Not Repeatable.

4 hours lecture.

Analysis of the contending theoretical formulations of international relations, the international political economy, factors of sovereignty, nationalism, relations between the core, semi-periphery and peripheral countries, the role of the World Trade Organization in international trade relations, international terrorism and global warming. The impact of international terrorism and international security on world politics are systematically analyzed in the context of an increasingly unipolar world as the struggle for hegemony ensues. 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. [FHGE: Social & Behavioral Sciences; Transferable: UC/CSU]

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.

Not Repeatable.

1 hour lecture.

A seminar in directed readings, discussions and projects in political science. Specific topics to be determined by the instructor. [FHGE: Non-GE; Transferable: 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. [FHGE: Non-GE; Transferable: CSU]

POLI 36 SPECIAL PROJECTS IN 1 Unit

POLI 36X POLITICAL SCIENCE 2 Units

POLI 36Y 3 Units

POLI 36Z 4 Units

May be taken 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. Enrollment is limited to 6 times within the POLI 36 group. [FHGE: Non-GE; Transferable: CSU]

PRIMARY CARE ASSOCIATE

Biological & Health Sciences (650) 725-6959

www.foothill.edu/bio/programs/primary/

Notice: PC courses are intended for students who are completing the Primary Care Associate Program. PCA courses are intended for students who have been admitted to the Primary Care Program in 2011.

P C 83 FAMILY MEDICINE DIDACTIC 6 Units

Prerequisite: P C 82.

Not Repeatable.

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. [FHGE: Non-GE; Transferable: CSU]

P C 83P FAMILY MEDICINE CLINICAL 9 Units

Prerequisites: P C 82P.

Not Repeatable.

32 hours preceptor-clinic, 12 hours laboratory, 2 hours field study.

Continuation of PC 82P. [FHGE: Non-GE; Transferable: CSU]

<p>P C 84 FAMILY MEDICINE DIDACTIC 8 Units Prerequisite: P C 83. Not Repeatable. 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. [FHGE: Non-GE; Transferable: CSU]</p>	<p>PCA 50 ORIENTATION TO PRIMARY CARE 1 Unit ASSOCIATE PROGRAM Formerly: P C 190X Non-degree applicable credit course. Prerequisite: Admission to the Primary Care Associate Program. Advisory; Not open to students with credit in P C 190X. Not Repeatable. 1 hour lecture. Orientation to the Primary Care Associate Program (PCA) and self-guided tasks required to complete a student pre-entry portfolio. Includes important health and safety clearances to ensure that students can participate safely in Primary Care Associate training. Required for PCA students. [FHGE: Non-GE; Transferable: CSU]</p>
<p>P C 84P FAMILY MEDICINE CLINICAL 9 Units Prerequisites: P C 83P. Not Repeatable. 32 hours preceptor-clinic, 12 hours laboratory, 2 hours field study. This is a continuation of P C 83P. [FHGE: Non-GE; Transferable: CSU]</p>	<p>PCA 51A BASIC SCIENCE/MICROBIOLOGY/ 2 Units INFECTIOUS DISEASE Formerly: P C 190Z Prerequisite: Admission to the Primary Care Program; PCA 50. Advisory: Not open to students with credit in P C 190Z. Not Repeatable. 2 hours lecture. Review of microbiology, cell physiology, molecular basis of biologic processes including genetics and the immune response. Builds on pre-entry knowledge to advance the depth and application of that knowledge to the range of disease states commonly seen in primary medical care. Coordinates with concurrent introductory topics in pharmacology. Includes function of organisms that cause human disease: prion, virus, prokaryotic bacteria, fungi, parasites. Prepares student for understanding the infectious disease process experienced in interaction of host and infecting organism. Required for Physician Assistant students. [FHGE: Non-GE; Transferable: CSU]</p>
<p>P C 85 SPECIAL CLINICAL PROJECTS IN 4 Units PRIMARY CARE MEDICINE Not Repeatable. 5 hours clinical practicum for each unit of credit. A clinical preceptorship designed to provide experience in selected medical settings. [FHGE: Non-GE; Transferable: CSU]</p>	<p>PCA 52A ANATOMY/PHYSIOLOGY/ 5 Units PATHOPHYSIOLOGY I Prerequisite: PCA 50. Not Repeatable. 4 hours lecture, 3 hours laboratory. Expands concepts presented in PCA 51A. Course composed of (1) introductory overview of organ function (normal and pathologic) within major human body systems; emphasis on integration of normal system anatomy, function and homeostatic mechanisms, (2) in-depth study of selected systems (immunology, hematology, dermatology, musculoskeletal, neurologic, EENT (eye, ear, nose, throat), respiratory), with emphasis on alterations from normal physiology produced by the range of disease states commonly seen in primary care medicine. [FHGE: Non-GE; Transferable: CSU]</p>
<p>P C 86 SPECIAL DIDACTIC PROJECTS IN 4 Units PRIMARY CARE MEDICINE 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. [FHGE: Non-GE; Transferable: CSU]</p>	<p>PCA 52B ANATOMY/PHYSIOLOGY/ 5 Units PATHOPHYSIOLOGY II Prerequisites: PCA 52A. Not Repeatable. 4 hours lecture, 3 hours laboratory. Continuation of PCA 52A. Consists of lectures to continue advancing student knowledge of organ function within selected major human body systems (cardiovascular, gastrointestinal, renal-urologic, reproductive, and endocrine), appreciating alterations of physiology produced by disease states commonly seen in primary care medicine. Includes systems-based anatomy lectures in preparation for gross anatomy lab. Lab provides observational and hands-on learning from prepared cadaver materials and preserved pathology specimens. An integrative component includes lectures on psychiatry/behavior (normal and abnormal) and common primary care disorders that affect multiple systems. This course is intended for students enrolled in the Primary Care Associate Program. [FHGE: Non-GE; Transferable: CSU]</p>
<p>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. [FHGE: Non-GE; Transferable: Not transferable]</p>	<p>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. [FHGE: Non-GE; Transferable: Not transferable]</p>
<p>P C 290X DIRECTED STUDY IN PRIMARY 1 Unit CARE MEDICINE Formerly: P C 190X Advisory: Pass/No Pass May be taken 6 times for credit. .5 hour lecture, 3.5 hours laboratory. For students who desire or require additional help in attaining comprehension and competency in learning skills. [FHGE: Non-GE; Transferable: Not transferable]</p>	<p>P C 290Y DIRECTED STUDY IN PRIMARY 1.5 Units CARE MEDICINE Formerly: P C 190Y May be taken 6 times for credit. .5 hour lecture, 5.5 hours laboratory. For students who desire or require additional help in attaining comprehension and competency in learning skills. [FHGE: Non-GE; Transferable: Not transferable]</p>

<p>PCA 53A PHARMACOLOGY I 3 Units Prerequisite: PCA 50. Not Repeatable. 3 hours lecture. Introduction to pharmacology principles and drug function in management of disease, prescription writing and laws for safe and ethical prescribing of medication. Pharmacologic management of infection disease and disorders of hematology, dermatology, musculoskeletal, neurologic, ophthalmologic, ear, nose, throat (EENT), and respiratory systems. Required for Physician Assistant students. [FHGE: Non-GE; Transferable: CSU]</p>	<p>PCA 54D PRE-CLINICAL IV 1 Unit Formerly: P C 82P Prerequisite: PCA 54C. Advisory: Not open to students with credit in P C 82P. Not Repeatable. .5 hour lecture, 1.5 hour laboratory. The last course of the pre-clinical sequence of the Primary Care Associate Program. Focus on behavioral medicine, clinical skills, and clinical problem solving. Includes a series of technical skills workshops necessary to provide care in the hospital and emergency room setting. Required for Physician Assistant students. [FHGE: Non-GE; Transferable: CSU]</p>
<p>PCA 53B PHARMACOLOGY II 3 Units Prerequisite: PCA 53A. Not Repeatable. 3 hours lecture. Course structured to expand the knowledge of drug function in management of disease. Builds on introductory concepts from PCA 53A and provides specific in-depth discussion of pharmacological management of infectious disease and disorders of the following systems: cardiovascular, gastrointestinal, renal-urologic, reproductive, endocrine, psychiatric/behavioral. Required for Physician Assistant students. [FHGE: Non-GE; Transferable: CSU]</p>	<p>PCA 55A PROFESSIONALISM/CULTURAL MEDICINE I 1 Unit Prerequisite: PCA 50. Not Repeatable. 1 hour lecture. This course focuses on core content related to professional, ethical and cross cultural issues in the PA professions. Content includes overview of the PA and NP profession, medical ethics, theories, and overview of the national health care system. It also includes development of skills to practice culturally appropriate medicine. Required for Physician Assistant students. [FHGE: Non-GE; Transferable: CSU]</p>
<p>PCA 54A PRE-CLINICAL I 3 Units Formerly: P C 80P Prerequisite: Admission to the Primary Care Associate Program. Advisory: Not open to students with credit in P C 80P. Not Repeatable. 1 hour lecture, 6 hours laboratory. First of four courses in the preclinical sequence of the Primary Care Associate Program. Focus on behavioral medicine, clinical skills, and clinical problem solving. Includes health history and adult physical exam skills. Required for Physician Assistant students. [FHGE: Non-GE; Transferable: CSU]</p>	<p>PCA 55B PROFESSIONALISM/CULTURAL MEDICINE II .5 Unit Prerequisite: PCA 55A. Not Repeatable. 1 hour lecture every two weeks. This course is a continuation of PCA 55A. It continues to focus on professional, ethical, and cross cultural issues in the PA profession. Content includes national accreditation for PA programs, certification, and licensure requirements for PAs. Ethical issues of patient confidentiality, and cultural issues such as health literacy are also included. Required for Physician Assistant students. [FHGE: Non-GE; Transferable: CSU]</p>
<p>PCA 54B PRE-CLINICAL II 3 Units Formerly: P C 80P Prerequisite: PCA 54A. Advisory: Not open to students with credit in P C 80P. Not Repeatable. 1 hour lecture, 6 hours laboratory. Second of four courses in the preclinical sequence of the Primary Care Associate Program. Focus on behavioral medicine, clinical skills, and clinical problem solving. It includes the health history and physical exam skills of the cardiovascular, gastrointestinal, renal, genitourinary, reproductive, endocrine, psychiatric/behavioral systems. Includes instruction in skills to evaluate disorders of multiple systems. [FHGE: Non-GE; Transferable: CSU]</p>	<p>PCA 55C PROFESSIONALISM/CULTURAL MEDICINE III .5 Unit Prerequisite: PCA 55B. Not Repeatable. 1 hour lecture, every two weeks. This course is a continuation of PCA 55B. It continues to focus on professional, ethical, and cross cultural issues in the PA profession. Content includes national and legal PA profession regulations, PA scope of practice, primary care practice and the under-served population. It also include concepts on ethnogeriatrics. Required for Physician Assistant students. [FHGE: Non-GE; Transferable: CSU]</p>
<p>PCA 54C PRE-CLINICAL III 4 Units Formerly: P C 81P Prerequisite: PCA 54B. Advisory: Not open to students with credit in P C 81P. Not Repeatable. 2 hours lecture, 6 hours laboratory. Third of four courses in the preclinical sequence of the Primary Care Associate Program. Focus on behavioral medicine, clinical skills, and clinical problem solving. It includes the health history and physical exam of the pediatric and geriatric patient. It also includes a series of technical skills workshops necessary to provide primary care in the outpatient setting. Required for Physician Assistant students. [FHGE: Non-GE; Transferable: CSU]</p>	<p>PCA 55D PROFESSIONALISM/CULTURAL MEDICINE IV 3 Units Prerequisite: PCA 55C. Not Repeatable. 3 hours lecture. Continuation of PCA 55C. This course focuses on preparation for practice for the PA profession: including national certification and CA licensing requirements, medical malpractice, and health care practice issues. It includes development of skills to practice culturally appropriate medicine. Required for Physician Assistant students. [FHGE: Non-GE; Transferable: CSU]</p>
	<p>PCA 56A CORE MEDICINE I 6 Units Formerly: P C 80 Prerequisite: PCA 50. Advisory: Not open to students with credit in P C 80. Not Repeatable. 6 hours lecture. This course is the first of a series of seven courses. It covers the presentation, evaluation, diagnosis and management of primary care disorders of the following systems: hematology, dermatology, musculoskeletal (axial, appendicular), neurologic, ophthalmologic, ear/nose/throat (ENT), and respiratory. Required for Physician Assistant students. [FHGE: Non-GE; Transferable: CSU]</p>

<p>PCA 56B CORE MEDICINE II 8.5 Units Formerly: P C 80 Prerequisite: PCA 56A. Advisory: Not open to students with credit in P C 80. Not Repeatable. 8.5 hours lecture. This course is the second of a series of seven courses. It covers the presentation, evaluation, diagnosis and management of primary care disorders of the following systems: cardiovascular, gastrointestinal, renal-urologic, reproductive-obstetrics, endocrine, psychiatric/behavioral, multisystems-rheumatologic. Required for Physician Assistant students. [FHGE: Non-GE; Transferable: CSU]</p>	<p>PCA 56G CORE MEDICINE VII 2 Units Formerly: P C 84 Prerequisite: PCA 56F. Advisory: Not open to students with credit in P C 84. Not Repeatable. 2 hours lecture. This course is the seventh and final course this series. It provides a summary review of all aspects of Core Medicine, Basic Science, Anatomy & Physiology, Pharmacology in preparation for summative evaluation, graduation and taking the Physician Assistant National Certifying Exam (PANCE). Required for Physician Assistant students. [FHGE: Non-GE; Transferable: CSU]</p>
<p>PCA 56C CORE MEDICINE III 9 Units Formerly: P C 81 Prerequisite: PCA56B. Advisory: Not open to students with credit in P C 81. Not Repeatable. 9 hours lecture. This course is the third of a series of seven courses. It covers the presentation, evaluation, diagnosis and management of primary care disorders of the following special groups: children, elders and women of reproductive age, including pregnancy. Systems-based instruction in detecting and managing oncologic disorders is presented. End of life issues are explored. The lectures expand and build on knowledge of topics introduced during PCA 56A and 56B. The systems/topics include Primary Care Issues in Pediatrics, Geriatrics, Oncology, and End of Life Issues. Required for Physician Assistant students. [FHGE: Non-GE; Transferable: CSU]</p>	<p>PCA 60A PRECEPTORSHIP I 4 Units Formerly: P C 81P Prerequisites: PCA 51A, 52B, 53B, 54B, 55B, 56B. Advisory: Not open to students with credit in P C 81P. Not Repeatable. 20 hours preceptorship. First of five courses in the clinical sequence of the Primary Care Associate Program. Assessing, planning, implementing, and evaluating patients in a primary care clinical setting. Development of progress in clinical performance with each successive academic period. Required for Physician Assistant students. [FHGE: Non-GE; Transferable: CSU]</p>
<p>PCA 56D CORE MEDICINE IV 5 Units Formerly: P C 82 Prerequisite: PCA 56C. Advisory: Not open to students with credit in P C 82. Not Repeatable. 5 hours lecture. This course is the fourth in a series of seven courses. It covers the presentation, evaluation, diagnosis and management of chronic disease and disorders seen in primary care settings. Preparation for inpatient, surgery and emergency medicine is included in this course. [FHGE: Non-GE; Transferable: CSU]</p>	<p>PCA 60B PRECEPTORSHIP II 6 Units Formerly: P C 82P Prerequisite: PCA 60A. Advisory: Not open to students with credit in P C 82P. Not Repeatable. 30 hours preceptorship. Second of the five course sequence of the Primary Care Associate Program. Assessing, planning, implementing, and evaluating patients in a primary care clinical setting. In addition to the content in PCA 60A, it includes Pediatric and Obstetric care in the primary care setting. Development of progress in clinical performance with each successive academic period. Required for Physician Assistant students. [FHGE: Non-GE; Transferable: CSU]</p>
<p>PCA 56E CORE MEDICINE V 1.5 Units Formerly: P C 83 Prerequisite: PCA 56D. Advisory: Not open to students with credit in P C 83. Not Repeatable. 1.5 hours lecture. This course is the fifth in a series of seven courses. It teaches the student to develop awareness of the role primary care clinicians play in issues of Epidemiology and Public Health. Students use case histories from their clinical experience to explore epidemiologic principles. Required for Physician Assistant students. [FHGE: Non-GE; Transferable: CSU]</p>	<p>PCA 60C PRECEPTORSHIP III 7 Units Formerly: P C 83P Prerequisite: PCA 60B. Advisory: Not open to students with credit in P C 83P. Not Repeatable. 35 hours preceptorship. Third of the five courses in the clinical sequence of the Primary Care Associate Program. Assessing, planning, implementing, and evaluating patients in a primary care clinical setting. In addition to the content in PCA 60A and B, it includes Emergency and Surgical care in the hospital setting. Development of progress in clinical performance with each successive academic period. Required for Physician Assistant students. [FHGE: Non-GE; Transferable: CSU]</p>
<p>PCA 56F CORE MEDICINE VI 1.5 Units Formerly: P C 83 Prerequisite: PCA 56E. Advisory: Not open to students with credit in P C 83. Not Repeatable. 1.5 hour lecture. This course is the sixth in a series of seven courses. It expands the student's awareness of the role hospital-based clinicians play in issues of Epidemiology and Public Health. Students use case histories from their hospital-based experience to explore epidemiologic principles. Required for Physician Assistant students. [FHGE: Non-GE; Transferable: CSU]</p>	<p>PCA 60D PRECEPTORSHIP IV 7 Units Formerly: P C 84P Prerequisite: PCA 60C. Advisory: Not open to students with credit in P C 84P. Not Repeatable. 35 hours preceptorship. The four of five courses in the clinical sequence of the Primary Care Associate Program. Assessing, planning, implementing, and evaluating patients in a primary care clinical setting. In addition to the content in PCA 60A, B and C, it includes hospital in-patient care. Development of progress in clinical performance with each successive academic period. Required for Physician Assistant students. [FHGE: Non-GE; Transferable: CSU]</p>

PCA 60E PRECEPTORSHIP V 6 Units
Formerly: P C 84P
 Prerequisites: PCA 60D.
 Advisory: Not open to students with credit in P C 84P.
 Not Repeatable.
 30 hours preceptorship.
 The last of five courses in the clinical sequence of the Primary Care Associate Program. Assessing, planning, implementing, and evaluating patients in a primary care setting, ER, surgical, and in-patient setting. Additional information about geriatric care is included. Continuation of PCA 60A, B, C and D. Required for Physician Assistant students. [FHGE: Non-GE; Transferable: CSU]

PSYC 21 PSYCHOLOGY OF WOMEN: SEX & GENDER DIFFERENCES 4 Units
 Advisory: Not open to students with credit in SOC 21 or WMN 21.
 Not Repeatable.
 4 hours lecture.
 Survey of gender issues based upon psychological and sociological theories and research. Examination of sex role stereotyping and differences. Developmental considerations. [FHGE: Social & Behavioral Sciences; Transferable: UC/CSU]

PSYC 22 PSYCHOLOGY OF PREJUDICE 4 Units
 Advisory: PSYC 1.
 Not Repeatable.
 4 hours lecture.
 Exploration of the psychological underpinnings of prejudice and discrimination. Investigates fundamental aspects of the mind and society that can lead to prejudice, conditions that can trigger discrimination, and complex psychological patterns that develop among different majority and non-majority groups. Explores ethnic, racial, gender, and sexual prejudice and solutions for how to reduce prejudice among these groups and others. [FHGE: United States Cultures & Communities, Social & Behavioral Sciences; Transferable: UC/CSU]

PSYC 25 INTRODUCTION TO ABNORMAL PSYCHOLOGY 4 Units
 Advisory: College-level reading and writing ability.
 Not Repeatable.
 4 hours lecture.
 Introduction to the scientific study of psychopathology. Investigation of psychological disorders from various theoretical perspectives such as biological, psychodynamic, behavioral, sociocultural, cognitive, and humanistic approaches. Survey of psychological disorders and their major causes and treatments. [FHGE: Social & Behavioral Sciences; Transferable: UC/CSU]

PSYC 30 SOCIAL PSYCHOLOGY 4 Units
 Advisory: Not open to students with credit in SOC 30; College-level reading and writing ability.
 Not Repeatable.
 4 hours lecture.
 Survey of human behavior in relation to the social environment. Focus on human interaction and the shaping of diverse and commonly-shared attitudes, beliefs and worldviews by society, culture and social groups. Emphasis on how individuals are influenced behaviorally, emotionally, and cognitively. Topics include but not limited to social cognition, aggression, interpersonal attraction, attitudes, social influence, prejudice and discrimination, gender, person perception, and cultural norms. [FHGE: Social & Behavioral Sciences; Transferable: UC/CSU]

PSYC 33 INTRODUCTION TO PERSONALITY PSYCHOLOGY 4 Units
 Advisory: College-level reading and writing ability.
 Not Repeatable.
 4 hours lecture.
 Introduction to the history, theoretical perspectives, research methodologies, assessments, and applications of the field of personality psychology. [FHGE: Social & Behavioral Sciences; Transferable: 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.
 May be taken 3 times for credit.
 1 hour lecture.
 A seminar in directed readings, discussions and projects in psychology. Specific topics to be determined by the instructor. [FHGE: Non-GE; Transferable: CSU]

PSYCHOLOGY

Business & Social Sciences (650) 949-7322
www.foothill.edu/bss/

PSYC 1 GENERAL PSYCHOLOGY 5 Units
 Not Repeatable.
 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. [FHGE: Social & Behavioral Sciences; Transferable: UC/CSU]

PSYC 4 INTRODUCTION TO BIOPSYCHOLOGY 4 Units
 Advisory: PSYC 1.
 Not Repeatable.
 4 hours lecture.
 Examines biological aspects of behavior and consciousness, brain structures, functions, and the brain-behavior connection. Mechanism and biological and sensory processes associated with learning, perception, motivation, emotion and speech. Central and peripheral nervous system processes underlying the behavior of humans and animals. [FHGE: Social & Behavioral Sciences; Transferable: UC/CSU]

PSYC 10 RESEARCH METHODS & DESIGNS 5 Units
 Prerequisites: PSYC 1, SOC 1.
 Advisory: Not open to students with credit in SOC 10; MATH 10; College-level reading and writing ability.
 Not Repeatable.
 4 hours lecture, 3 hours laboratory.
 Survey of the various quantitative and qualitative research methods. Emphasis on the research design, planning, experimental procedures, and the collection, analysis, interpretation, and reporting of data. Laboratory emphasis on group work, data entry, and analysis of data with statistical software. [FHGE: Social & Behavioral Sciences; Transferable: UC/CSU]

PSYC 14 CHILD & ADOLESCENT DEVELOPMENT 4 Units
 Advisory: College-level reading and writing ability.
 Not Repeatable.
 4 hours lecture.
 Survey of human development from conception through adolescence. Emphasis on the biological, cognitive, social, and emotional changes during development. Discussion of historical and contemporary research, and theoretical perspectives pertaining to children and adolescents. [FHGE: Social & Behavioral Sciences; Transferable: UC/CSU]

PSYC 35 DEPARTMENT HONORS PROJECTS IN PSYCHOLOGY 1 Unit
Advisory: College-level reading and writing ability.
 May be taken 6 times for credit.
 1 hour lecture.
 Seminar in readings, research, critical techniques, and practice. Specific topics will vary. [FHGE: Non-GE; Transferable: CSU]

PSYC 36 SPECIAL PROJECTS IN PSYCHOLOGY 1 Unit
PSYC 36X 2 Units
PSYC 36Y 3 Units
PSYC 36Z 4 Units
Advisory: College-level reading and writing ability.
 May be taken 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. Enrollment is limited to 6 times within the PSYC 36 group. [FHGE: Non-GE; Transferable: CSU]

PSYC 40 HUMAN DEVELOPMENT 4 Units
Not Repeatable.
 4 hours lecture.
 Intellectual, social and personality development through the life span. [FHGE: Social & Behavioral Sciences; Transferable: UC/CSU]

PSYC 49 HUMAN SEXUALITY 4 Units
Not Repeatable.
 4 hours lecture.
 Current scientific 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. [FHGE: Social & Behavioral Sciences; Transferable: UC/CSU]

PSYC 50 PSYCHOLOGY OF CRISIS 5 Units
Advisory: PSYC 1.
Not Repeatable.
 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. [FHGE: Non-GE; Transferable: CSU]

PSYC 55 PSYCHOLOGY OF SPORTS 4 Units
Not Repeatable.
 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. [FHGE: Social & Behavioral Sciences; Transferable: CSU]

RADIO

Fine Arts & Communication (650) 949-7555
www.kfjc.org/ & www.foothill.edu/fa/

RAD 70 SPECIAL PROJECTS IN RADIO 1 Unit
 May be taken 6 times for credit.
 3 hours of laboratory.
 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. [FHGE: Non-GE; Transferable: CSU]

RAD 80 FUNDAMENTALS OF RADIO PRODUCTION & STATION OPERATION 3 Units
Not Repeatable.
 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. [FHGE: Non-GE; Transferable: CSU]

RAD 81 HISTORY OF RADIO 1920-PRESENT 4 Units
Not Repeatable.
 4 hours lecture.
 A comprehensive study of the radio broadcasting industry, its origin, development, operation, regulation, and influences. [FHGE: Non-GE; Transferable: CSU]

RAD 90A NEWS & INFORMATION PRODUCTION I 3 Units
Advisory: Concurrent enrollment in RAD 80.
Not Repeatable.
 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. [FHGE: Non-GE; Transferable: CSU]

RAD 90B NEWS & INFORMATION PRODUCTION II 3 Units
Prerequisite: RAD 90A.
Not Repeatable.
 1 hour lecture, 6 hours laboratory.
 Elementary scripting, voicing, and recording of informational programming. Advancement in news, public affairs, sports, public service announcement production and department operations at the Foothill College FM station. [FHGE: Non-GE; Transferable: CSU]

RAD 90C NEWS & INFORMATION PRODUCTION III 3 Units
Prerequisite: RAD 90A.
Not Repeatable.
 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. [FHGE: Non-GE; Transferable: CSU]

RAD 90D NEWS & INFORMATION PRODUCTION IV 3 Units
Prerequisite: RAD 90A.
Not Repeatable.
 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. [FHGE: Non-GE; Transferable: CSU]

RAD 91A RADIO STATION SALES & MARKETING I 3 Units
Advisory: RAD 90A.
Not Repeatable.
 1 hour lecture, 6 hours laboratory.
 Fundamentals of radio sales training, marketing, promotions and publicity, and departmental operations at the Foothill College FM station. [FHGE: Non-GE; Transferable: CSU]

RAD 91B RADIO STATION SALES & MARKETING II 3 Units
Advisory: RAD 90.
Not Repeatable.
 1 hour lecture, 6 hours laboratory.
 Elementary radio sales training, marketing, publicity and promotions, and departmental operations at the Foothill College FM station. [FHGE: Non-GE; Transferable: CSU]

RAD 91C RADIO STATION SALES & MARKETING III 3 Units
Advisory: RAD 90A.
Not Repeatable.
1 hour lecture, 6 hours laboratory.
 Intermediate radio sales training, marketing, promotions and publicity, and departmental operations at the Foothill College FM station. [FHGE: Non-GE; Transferable: CSU]

RAD 91D RADIO STATION SALES & MARKETING IV 3 Units
Advisory: RAD 90A.
Not Repeatable.
1 hour lecture, 6 hours laboratory.
 Advanced radio sales training, marketing, promotions and publicity, and departmental operations at the Foothill College FM station. [FHGE: Non-GE; Transferable: CSU]

RAD 92A RADIO PROGRAMMING & PRODUCTION I 3 Units
Advisory: RAD 90A.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: CSU]

RAD 92B RADIO PROGRAMMING & PRODUCTION II 3 Units
Advisory: RAD 90A.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: CSU]

RAD 92C RADIO PROGRAMMING & PRODUCTION III 3 Units
Advisory: RAD 90A.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: CSU]

RAD 92D RADIO PROGRAMMING & PRODUCTION IV 3 Units
Advisory: RAD 90A.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: CSU]

RAD 93A MUSIC INDUSTRY RELATIONS & ENGINEERING I 3 Units
Advisory: RAD 90A.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: CSU]

RAD 93B MUSIC INDUSTRY RELATIONS & ENGINEERING II 3 Units
Advisory: RAD 90A.
Not Repeatable.
1 hour lecture, 6 hours laboratory.
 Elementary music industry relations and engineering. Soliciting 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. [FHGE: Non-GE; Transferable: CSU]

RAD 93C MUSIC INDUSTRY RELATIONS & ENGINEERING III 3 Units
Advisory: RAD 90A.
Not Repeatable.
1 hour lecture, 6 hours laboratory.
 Intermediate music industry relations and engineering. Soliciting 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. [FHGE: Non-GE; Transferable: CSU]

RAD 93D MUSIC INDUSTRY RELATIONS & ENGINEERING IV 3 Units
Advisory: RAD 90A.
Not Repeatable.
1 hour lecture, 6 hours laboratory.
 Advanced music industry relations and engineering. Soliciting 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. [FHGE: Non-GE; Transferable: CSU]

RAD 190X DIRECTED STUDY 1.5 Units
May be taken 6 times for credit.
.5 hour lecture, 3 hours laboratory.
 For students who want or need to increase proficiency in specific aspects of the core radio curriculum (Radio 90A - 93D). The course is a "radio lab" class involving active participation in operations of a radio station. [FHGE: Non-GE; Transferable: Not transferable]

RADIOLOGIC TECHNOLOGY

Biological & Health Sciences (650) 949-7538
www.foothill.edu/bio/programs/radtech/

R T 50 ORIENTATION TO RADIATION SCIENCE TECHNOLOGIES 2 Units
Prerequisites: BIOL 40A, 40B and 40C or equivalent; admission to Radiologic Technology Program.
Not Repeatable.
2 hours lecture.
 Overview of Radiologic Technology as a career. Radiographic terminology, positioning for abdomen, vital sign assessment, introduction to x-ray protection and production, radiographic image formation, patient care, basic computer operation and Internet application. Overview of program structure and student services. Intended for students accepted into the Radiologic Technology Program. [FHGE: Non-GE; Transferable: CSU]

R T 51A FUNDAMENTALS OF RADIOLOGIC TECHNOLOGY I 3 Units
Prerequisite: R T 50.
Not Repeatable.
3 hours lecture.
 Medical and Radiographic terms. Basic positioning and anatomy related to chest, abdomen, upper and lower extremities. Intended for students accepted into the Radiologic Technology Program. [FHGE: Non-GE; Transferable: CSU]

<p>RT 51B FUNDAMENTALS OF RADIOLOGIC TECHNOLOGY II 3 Units</p> <p>Prerequisite: R T 51A. Not Repeatable. 3 hours lecture. Continuation of RT 51A; radiographic anatomy, positioning and procedures related to hip/pelvis, gastrointestinal tract, urinary system and biliary system. Intended for students accepted into the Radiologic Technology Program. [FHGE: Non-GE; Transferable: CSU]</p>	<p>RT 53A APPLIED RADIOGRAPHIC TECHNOLOGY I 3 Units</p> <p>Prerequisite: R T 53. Not Repeatable. 16 hours clinical laboratory, 2 hours case study research. This course is the first in a series of four sequential courses that includes clinical participation and application of basic positioning, patient care, equipment manipulation, radiation protection and image analysis. Intended for students admitted into the Radiologic Technology Program. [FHGE: Non-GE; Transferable: CSU]</p>
<p>RT 51C FUNDAMENTALS OF RADIOLOGIC TECHNOLOGY III 3 Units</p> <p>Prerequisite: R T 51B. Not Repeatable. 3 hours lecture. Continuation of R T 51B; radiographic anatomy, positioning and terminology, related to the skull, vertebral column, bony thorax, myelography, arthrography and pediatric radiology. Intended for students accepted into the Radiologic Technology Program. [FHGE: Non-GE; Transferable: CSU]</p>	<p>RT 53AL APPLIED RADIOGRAPHIC TECHNOLOGY LABORATORY I 1 Unit</p> <p>Prerequisite: R T 50. Not Repeatable. 3 hours laboratory. This is the first in a series of three sequential courses that includes laboratory participation and application of basic positioning, patient care, equipment manipulation, radiation protection, image analysis and technical radiographic experiments. Emphasis on abdomen, chest, upper and lower extremities as learned in the companion lecture course, RT 51A. Intended for students accepted into the Radiologic Technology Program. [FHGE: Non-GE; Transferable: CSU]</p>
<p>RT 52A PRINCIPLES OF RADIOLOGIC TECHNOLOGY I 3 Units</p> <p>Prerequisite: R T 50. Not Repeatable. 3 hours lecture. The course presents an introduction to elementary principles of x-ray physics, technique, and radiation protection. Intended for students admitted into the Radiologic Technology Program. [FHGE: Non-GE; Transferable: CSU]</p>	<p>RT 53B APPLIED RADIOGRAPHIC TECHNOLOGY II 3 Units</p> <p>Prerequisite: R T 53A. Not Repeatable. 16 hours clinical laboratory, 2 hours case study research. This course is the second in a series of four sequential courses that includes clinical participation and application of basic positioning, patient care, equipment manipulation, radiation protection and image analysis. Intended for students admitted into the Radiologic Technology Program. [FHGE: Non-GE; Transferable: CSU]</p>
<p>RT 52B PRINCIPLES OF RADIOLOGIC TECHNOLOGY II 3 Units</p> <p>Prerequisite: R T 52A. Not Repeatable. 3 hours lecture. Continuation of R T 52A, including physics, technique, processing and protection. Intended for students admitted into the Radiologic Technology Program. [FHGE: Non-GE; Transferable: CSU]</p>	<p>RT 53BL APPLIED RADIOGRAPHIC TECHNOLOGY LABORATORY II 1 Unit</p> <p>Prerequisite: R T 53AL. Not Repeatable. 3 hours laboratory. This course is the second in a series of three sequential courses that includes laboratory participation and application of basic positioning, patient care, equipment manipulation, radiation protection, image analysis and technical radiographic experiments. Emphasis on hip/pelvis, esophagus, stomach, colon and urinary system as learned in the companion lecture course, R T 51B. Intended for students accepted into the Radiologic Technology Program. [FHGE: Non-GE; Transferable: CSU]</p>
<p>RT 52C PRINCIPLES OF RADIOLOGIC TECHNOLOGY III 3 Units</p> <p>Prerequisite: R T 52B. Not Repeatable. 3 hours lecture. Continuation of R T 52B. Expansion of principles of X-ray physics, technique and protection. Intended for students admitted into the Radiologic Technology Program. [FHGE: Non-GE; Transferable: CSU]</p>	<p>RT 53C APPLIED RADIOGRAPHIC TECHNOLOGY III 3 Units</p> <p>Prerequisite: R T 53B. Not Repeatable. 16 hours clinical laboratory, 2 hours case study research. This course is the third in a series of four sequential courses that includes clinical participation and application of basic positioning, patient care, equipment manipulation, radiation protection and image analysis. Intended for students admitted into the Radiologic Technology Program. [FHGE: Non-GE; Transferable: CSU]</p>
<p>RT 52D DIGITAL IMAGE ACQUISITION & DISPLAY 2.5 Units</p> <p>Prerequisite: R T 52C. Not Repeatable. 2.5 hours lecture, .5 hour laboratory. Designed to impart an understanding of components, principles and operation of digital imaging systems found in diagnostic radiology. Factors that impact image acquisition, display, archiving and retrieval are discussed. Compare/contrast digital and film-based systems. Principles of digital system quality assurance and maintenance. Intended for students accepted into the Radiologic Technology Program. [FHGE: Non-GE; Transferable: CSU]</p>	<p>RT 53CL APPLIED RADIOGRAPHIC TECHNOLOGY LABORATORY III 1 Unit</p> <p>Prerequisite: R T 53BL. Not Repeatable. 3 hours laboratory. This is the third in a series of three sequential courses that includes laboratory participation and application of basic positioning, patient care, equipment manipulation, radiation protection, image analysis and technical radiographic experiments. Emphasis on vertebral column, sacrum and coccyx, ribs and skull as learned in the companion lecture course, R T 51C. Intended for students accepted into the Radiologic Technology Program. [FHGE: Non-GE; Transferable: CSU]</p>
<p>RT 53 ORIENTATION TO RADIOLOGIC TECHNOLOGY 1 Unit</p> <p>Prerequisite: Admission to Radiologic Technology Program. Not Repeatable. 4 hours clinical laboratory. Orientation to radiation sciences, with emphasis on clinical participation. Intended for students accepted into the Radiologic Technology Program. [FHGE: Non-GE; Transferable: CSU]</p>	

<p>RT 53D APPLIED RADIOLOGIC TECHNOLOGY IV 8 Units</p> <p>Prerequisites: R T 53C. Not Repeatable. 27 hours clinical laboratory, 2 hours case study research. This course is the fourth in a series of four sequential courses that includes clinical participation and application of basic positioning, patient care, equipment manipulation, radiation protection and image analysis. Intended for students admitted into the Radiologic Technology Program. [FHGE: Non-GE; Transferable: CSU]</p>	<p>RT 62B SPECIAL PROCEDURES & EQUIPMENT 3 Units</p> <p>Prerequisites: R T 62A. Not Repeatable. 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. Intended for students accepted into the Radiologic Technology Program. [FHGE: Non-GE; Transferable: CSU]</p>
<p>RT 54A BASIC PATIENT CARE FOR IMAGING TECHNOLOGY 2 Units</p> <p>Formerly: R T 50B Prerequisite: R T 50. Advisory: Not open to students with credit in R T 50B. Not Repeatable. 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. Intended for students accepted into the Radiologic Technology Program. [FHGE: Non-GE; Transferable: CSU]</p>	<p>RT 62C PROFESSIONAL DEVELOPMENT IN RADIOLOGY 3 Units</p> <p>Prerequisites: R T 62B. Not Repeatable. 3 hours lecture. This course covers the subjects of professional development in radiography, continuing education, advanced modalities, cardiopulmonary resuscitation, and trauma radiology. Intended for students accepted into the Radiologic Technology Program. [FHGE: Non-GE; Transferable: CSU]</p>
<p>RT 54B LAW & ETHICS IN MEDICAL IMAGING 2 Units</p> <p>Formerly: R T 50A Prerequisite: R T 54A. Advisory: Not open to students with credit in R T 50A. Not Repeatable. 2 hours lecture. A fundamental background in ethics, historical and philosophical basis of ethics, as well as elements of ethical behavior in regards to clinical practice. Misconduct, malpractice, legal and professional standards and the ASRT scope of practice. Intended for students accepted into the Radiologic Technology Program. [FHGE: Non-GE; Transferable: CSU]</p>	<p>RT 62D APPLIED RADIOLOGIC TECHNOLOGY 1 Unit</p> <p>Prerequisite: R T 62C. Not Repeatable. 6 hours clinical laboratory. Clinical experience in advanced positioning of the skull, facial bones, mastoids and sinuses with emphasis on computed tomography. [FHGE: Non-GE; Transferable: CSU]</p>
<p>RT 54C RADIOGRAPHIC PATHOLOGY 3 Units</p> <p>Formerly: R T 51D Prerequisite: R T 54B. Advisory: Not open to students with credit in R T 51D. Not Repeatable. 3 hours lecture. Radiographic Pathology of the respiratory, osseous, fractures, urinary, gastrointestinal, hepatobiliary, central nervous, hemopoietic and endocrine systems, HSG's and associated pathologies. Intended for students accepted into the Radiologic Technology Program. [FHGE: Non-GE; Transferable: CSU]</p>	<p>RT 63 ADVANCED RADIOGRAPHIC PRINCIPLES 3 Units</p> <p>Prerequisite: R T 62B. Not Repeatable. 3 hours lecture. Special emphasis on reviewing the Content Specifications for the ARRT Examination in Radiography; radiation protection, equipment operation and quality control, image acquisition and evaluation, imaging procedures, patient care and education. Intended for students admitted into the Radiologic Technology Program. [FHGE: Non-GE; Transferable: CSU]</p>
<p>RT 54D RADIOGRAPHIC PATHOLOGY 3 Units</p> <p>Formerly: R T 51D Prerequisite: R T 54B. Advisory: Not open to students with credit in R T 51D. Not Repeatable. 3 hours lecture. Radiographic Pathology of the respiratory, osseous, fractures, urinary, gastrointestinal, hepatobiliary, central nervous, hemopoietic and endocrine systems, HSG's and associated pathologies. Intended for students accepted into the Radiologic Technology Program. [FHGE: Non-GE; Transferable: CSU]</p>	<p>RT 63A RADIOGRAPHIC CLINICAL PRACTICUM I 7.5 Units</p> <p>Prerequisites: RT 53D Not Repeatable. 32 hours clinical laboratory, 2 hours case study research. Radiographic Clinical Practicum I is the first in a series of three sequential courses that includes clinical participation and application of basic positioning, patient care, equipment manipulation, radiation protection and image analysis. Emphasis on utilizing advanced modalities including MRI/CT. Intended for students accepted into the Radiologic Technology Program. [FHGE: Non-GE; Transferable: CSU]</p>
<p>RT 61B RADIOLOGY RESEARCH PROJECT 1 Unit</p> <p>Prerequisites: R T 62A. Not Repeatable. 1 hour lecture. Collaborative research project on a highly specialized area of radiography or other imaging modality. Group presentation and scientific poster display board required. Specific topics to be determined by the instructor. Intended for students accepted into the Radiologic Technology Program. [FHGE: Non-GE; Transferable: CSU]</p>	<p>RT 63B RADIOGRAPHIC CLINICAL PRACTICUM II 7.5 Units</p> <p>Prerequisites: RT 63A Not Repeatable. 32 hours clinical laboratory, 2 hours case study research. Radiographic Clinical Practicum II is the second in a series of three sequential courses that includes clinical participation and application of basic positioning, patient care, equipment manipulation, radiation protection and image analysis. Emphasis on advanced radiographic examinations of the skull, mandible, orbits, nasal bones, facial bones, para-nasal sinuses, mastoids and on special procedures. Intended for students accepted into the Radiologic Technology Program. [FHGE: Non-GE; Transferable: CSU]</p>
<p>RT 62A ADVANCED MODALITIES IN IMAGING 3 Units</p> <p>Prerequisites: R T 52C. Not Repeatable. 3 hours lecture. Specialized radiographic procedures related to Magnetic Resonance Imaging and Computerized Tomography. Computer applications related to image capture, display, storage, and distribution. Sectional anatomy of the head, neck, thorax, abdomen, pelvis, vertebral column, and extremities. Intended for students accepted into the Radiologic Technology Program. [FHGE: Non-GE; Transferable: CSU]</p>	

RT 63C RADIOGRAPHIC CLINICAL PRACTICUM III 7.5 Units

Prerequisites: RT 63B
Not Repeatable.

32 hours clinical laboratory.

Radiographic Clinical Practicum III is the third in a series of three sequential courses that includes clinical participation and application of basic positioning, patient care, equipment manipulation, radiation protection and image analysis. Emphasis on radiographic techniques and positioning in trauma radiology. Intended for students accepted into the Radiologic Technology Program. [FHGE: Non-GE; Transferable: CSU]

RT 63D RADIOGRAPHIC CLINICAL PRACTICUM 7.5 Units

Prerequisites: R T 62C and 63C.
Not Repeatable.

32 hours clinical laboratory.

Special emphasis on advanced radiographic physics, technique, protection and positioning for registry examination preparation. Continued clinical experience and film analysis. [FHGE: Non-GE; Transferable: CSU]

RT 64 FLUOROSCOPY 4.5 Units

Prerequisite: R T 52C or current certification in Radiologic Technology or Radiation Therapy Technology.

May be taken 3 times for credit.

4 hours lecture, 1.5 hours laboratory for a 10 week session.

The fluoroscopy course includes the principles of radiation protection and fluoroscopic equipment, application of special equipment, illumination and photometry, anatomy and physiology of the eye and relationship of internal organs. Intended for students admitted into the Radiologic Technology Program. [FHGE: Non-GE; Transferable: CSU]

RT 65 MAMMOGRAPHY 3 Units

Prerequisite: R T 62A or current certification in Radiologic Technology.
May be taken 3 times for credit.

2.5 hours lecture, 1.5 hours laboratory.

Technical and procedural aspects of mammography including breast anatomy, physiology, positioning, compression, quality assurance techniques, implant imaging and mass localization. Successful completion of this course entitles the student to a Certificate of Completion of a 40 hour course in mammography education. Intended for students accepted into the Radiologic Technology Program. [FHGE: Non-GE; Transferable: CSU]

RT 71 ADVANCED CLINICAL EXPERIENCE: MAGNETIC RESONANCE IMAGING 8 Units

Prerequisites: Current ARRT and CRT Certification as a Radiologic Technologist.

Not Repeatable.

40 hours clinical laboratory.

Designed as a practicum in a magnetic resonance department. Practical experience is implemented to expose the post-graduate radiologic technology student to the principles of MRI with emphasis on mastery of the knowledge, insight, and skills required to perform MRI procedures. [FHGE: Non-GE; Transferable: CSU]

RT 72 VENIPUNCTURE 1.5 Units

Prerequisites: RT 51C or current Certification in Radiologic Technology; current Health Care Provider CPR card.

Not Repeatable.

1 hour lecture, 2 hours laboratory.

Principles and practices of intravenous injection. Includes theory, demonstration and application of venipuncture equipment and solutions, puncture techniques, complications, and post-puncture care. Meets state of California qualifications for didactic certification in venipuncture for radiologic technologists. Intended for students accepted into the Radiologic Technology Program and/or currently certified Radiologic Technologists. [FHGE: Non-GE; Transferable: CSU]

RT 74 ADVANCED CLINICAL EXPERIENCE: COMPUTED TOMOGRAPHY 8 Units

Prerequisite: Current ARRT and CRT certification as a Radiologic Technologist.

Not Repeatable.

40 hours clinical laboratory.

Designed as a practicum in a computed tomography department. Practical experience is implemented to expose the post-graduate radiologic technology student to the principles of CT with emphasis on mastery of the knowledge, insight and skills required to perform CT procedures. [FHGE: Non-GE; Transferable: CSU]

RT 200L RADIOLOGIC TECHNOLOGY AS A CAREER 1 Unit

Non-degree applicable credit course.

Not Repeatable.

2 hours lecture-laboratory.

Introduction to the radiological sciences and its role in health care. Focus on the use of ionizing radiation in the diagnosis and treatment of disease and on the health professionals responsible for providing this medical specialty. Discussion of requirements for the Radiologic Technology Program. (6 hours hospital observation included). [FHGE: Non-GE; Transferable: Not transferable]

REAL ESTATE

Business & Social Sciences

(650) 949-7322

www.foothill.edu/bss/

RE 50 REAL ESTATE PRINCIPLES 4 Units

Not Repeatable.

4 hours lecture.

Fundamental principles, economics, law, working concepts, forms, and terminology. California real estate law as preparation for the salesman and broker examinations. [FHGE: Non-GE; Transferable: CSU]

RE 51 REAL ESTATE PRACTICES 4 Units

Advisory: RE 50 or a current California Real Estate sales or broker's license.

Not Repeatable.

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. [FHGE: Non-GE; Transferable: CSU]

RE 52A LEGAL ASPECTS OF REAL ESTATE I 4 Units

Advisory: R E 50.

Not Repeatable.

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. [FHGE: Non-GE; Transferable: CSU]

RE 53 REAL ESTATE FINANCE 4 Units

Not Repeatable.

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. [FHGE: Non-GE; Transferable: CSU]

RE 54 REAL ESTATE ECONOMICS 4 Units

Not Repeatable.

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. [FHGE: Non-GE; Transferable: CSU]

R E 59 SURVEY OF REAL ESTATE PROPERTY MANAGEMENT 4 Units

Advisory: R E 50.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: CSU]

RESPIRATORY THERAPY

Biological & Health Sciences (650) 949-7538
www.foothill.edu/bio/programs/respther/

RSPT 50A RESPIRATORY THERAPY PROCEDURES 4.5 Units

Prerequisite: Admission to the Respiratory Therapy Program.
Advisory: Eligibility for ESLL 26 or ENGL 1A.
Corequisite: RSPT 52.
Not Repeatable.

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. This course is intended for students accepted and enrolled in the Respiratory Therapy Program. [FHGE: Non-GE; Transferable: CSU]

RSPT 50B INTRODUCTION TO PROCEDURES & HOSPITAL ORIENTATION 6 Units

Prerequisites: RSPT 50A; CPR certification (Health Provider C); RSPT 54.
Advisory: RSPT 51A.
Not Repeatable.
3 hours lecture, 4.5 hours laboratory, 4 hours clinic, 2 hours skill development.

Introduction to hospital and patient care, administration of hyperinflation therapy, airway pharmacology, bronchial hygiene therapy with chest physiotherapy techniques, introduction to non-invasive ventilation, basic and advanced airway care, infection control procedures of equipment, nutrition assessment. This course is intended for students accepted and enrolled in the Respiratory Therapy Program. [FHGE: Non-GE; Transferable: CSU]

RSPT 50C THERAPEUTICS & INTRODUCTION TO MECHANICAL VENTILATION 4.5 Units

Prerequisites: RSPT 50B and 53A.
Not Repeatable.
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, IPV, as well as introduction to invasive and non-invasive mechanical ventilation. [FHGE: Non-GE; Transferable: CSU]

RSPT 51A INTRODUCTION TO RESPIRATORY ANATOMY & PHYSIOLOGY 2 Units

Prerequisite: Admission to the Respiratory Therapy Program.
Not Repeatable.
2 hours lecture.
Anatomy of the respiratory system, ventilation, diffusion of pulmonary gases, circulatory system, and oxygen transport. [FHGE: Non-GE; Transferable: CSU]

RSPT 51B RESPIRATORY PHYSIOLOGY 3 Units

Prerequisite: RSPT 51A or equivalent.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: CSU]

RSPT 51C PATIENT ASSESSMENT & PULMONARY DISEASE 4.5 Units

Prerequisite: BIOL 41.
Corequisite: RSPT 51B.
Not Repeatable.
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. This course is intended for students accepted and enrolled in the Respiratory Therapy Program. [FHGE: Non-GE; Transferable: CSU]

RSPT 52 APPLIED SCIENCE FOR RESPIRATORY THERAPY 3 Units

Prerequisites: CHEM 25 or 30A; MATH 220, or high school chemistry or equivalent.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: CSU]

RSPT 53A INTRODUCTION TO RESPIRATORY THERAPY PHARMACOLOGY 2 Units

Prerequisite: MATH 220.
Advisory: Concurrent enrollment in RSPT 50B.
Not Repeatable.
2 hours lecture.
An in-depth study of drug groups commonly used in the treatment of airway obstruction. [FHGE: Non-GE; Transferable: CSU]

RSPT 53B ADVANCED RESPIRATORY THERAPY PHARMACOLOGY 2 Units

Prerequisite: RSPT 53A.
Corequisite: RSPT 60A.
Not Repeatable.
2 hours lecture.
An in-depth study of drug groups commonly encountered in intensive respiratory care. [FHGE: Non-GE; Transferable: CSU]

RSPT 54 ORIENTATION TO RESPIRATORY CARE 2 Units

Prerequisite: Admission to Respiratory Therapy Program.
Not Repeatable.
2 hours lecture.
Orientation to the Respiratory Therapy Program and health care. Current issues in American medical care, professionalism, death, dying and loss, communication skills, cultural diversity, HIPAA, ethics, legal issues, and patient's rights. This course is intended for students accepted and enrolled in the Respiratory Therapy Program. [FHGE: Non-GE; Transferable: CSU]

RSPT 55A DIRECTED STUDIES IN RESPIRATORY THERAPY I .5 Unit

Prerequisite: Admission to the Respiratory Therapy Program.
Not Repeatable.
2 hours laboratory.
First in a series of seven media classes paralleling content taught in courses in the Respiratory Therapy Program. Focus on Oxygen equipment, Anatomy and Physiology, vital assessments and decision making. This course is intended for students accepted and enrolled in the Respiratory Therapy Program. [FHGE: Non-GE; Transferable: CSU]

RSPT 55B DIRECTED STUDIES IN RESPIRATORY THERAPY II .5 Unit

Advisory: This course is intended for students accepted and enrolled in the Respiratory Therapy Program.
Not Repeatable.
2 hours laboratory.
Second in a series of seven media classes paralleling content taught in courses in the Respiratory Therapy Program. The goal of this course is to develop and strengthen concepts taught in the concurrent lecture and laboratory sessions of the Respiratory Therapy program. Media materials

will provide an alternative learning resource for non-traditional students. This course is intended for students currently accepted and enrolled in the Respiratory Therapy Program. [FHGE: Non-GE; Transferable: CSU]

RSPT 55C DIRECTED STUDIES IN RESPIRATORY THERAPY III .5 Unit

Advisory: This course is intended for students accepted and enrolled in the Respiratory Therapy Program.

Not Repeatable.

2 hours laboratory.

Third in a series of seven media classes paralleling content taught in courses in the Respiratory Therapy Program. Focus on Assessments and data evaluation. This course is intended for students currently accepted and enrolled in the Respiratory Therapy Program. [FHGE: Non-GE; Transferable: CSU]

RSPT 55D DIRECTED STUDIES IN RESPIRATORY THERAPY IV .5 Unit

Advisory: This course is intended for students accepted and enrolled in the Respiratory Therapy Program.

Not Repeatable.

2 hours laboratory.

Fourth in a series of seven Media instruction and evaluation in topics paralleling content in courses in the Respiratory Therapy program. Content to include Invasive and Non-invasive ventilation strategies and management, Arterial Blood Gases, and Innovative Approaches to the Management of ARDS. This course is intended for students currently accepted and enrolled in the Respiratory Therapy Program. [FHGE: Non-GE; Transferable: CSU]

RSPT 55E DIRECTED STUDIES IN RESPIRATORY THERAPY V .5 Unit

Advisory: This course is intended for students accepted and enrolled in the Respiratory Therapy Program.

Not Repeatable.

2 hours laboratory.

Fifth in a series of seven Media instruction and evaluation in topics paralleling content taught in courses in the Respiratory Therapy program. Topics include neonatal and pediatric diseases, ECG and Hemodynamic monitoring. This course is intended for students accepted and enrolled in the Respiratory Therapy Program. [FHGE: Non-GE; Transferable: CSU]

RSPT 55F DIRECTED STUDIES IN RESPIRATORY THERAPY VI .5 Unit

Advisory: This course is intended for students accepted and enrolled in the Respiratory Therapy Program.

Not Repeatable.

2 hours laboratory.

Sixth in a series of seven Media instruction and evaluation in topics paralleling content taught in courses in the Respiratory Therapy program. Topics covered include: COPD/Mechanical Ventilation, Head Injury, Acute Congestive Heart Failure, Near Drowning, Neonatal Respiratory Distress Syndrome, Hypothermia with Cardiac Arrest, COPD/Home Care & Pulmonary Rehabilitation. This course is intended for students accepted and enrolled in the Respiratory Therapy Program. [FHGE: Non-GE; Transferable: CSU]

RSPT 55G DIRECTED STUDIES IN RESPIRATORY THERAPY VII .5 Unit

Advisory: This course is intended for students accepted and enrolled in the Respiratory Therapy Program.

Not Repeatable.

2 hours laboratory.

Last in a series of seven Media instruction and evaluation in topics paralleling content taught in courses in the Respiratory Therapy program. Students will take Practice Exams of the National Entry level and Registry examinations. Content will also include Advanced PFT and Basic Spirometry. This course is intended for students accepted and enrolled in the Respiratory Therapy Program. [FHGE: Non-GE; Transferable: CSU]

RSPT 60A CARDIOLOGY FOR RESPIRATORY THERAPISTS 2 Units

Prerequisite: RSPT 61A.

Not Repeatable.

2 hours lecture.

Electrocardiogram and rhythm recognition. Invasive and non-invasive hemodynamic monitoring. Cardiac diagnostic and therapeutic procedures. Fluid balance. [FHGE: Non-GE; Transferable: CSU]

RSPT 60B ADVANCED CARDIAC LIFE SUPPORT 2 Units

Prerequisites: RSPT 53B and 60A.

Not Repeatable.

2 hours lecture.

Preparation for Advanced Cardiac Life Support Certification. This course is designed for healthcare providers who will be directing or participating in the resuscitation of patients. Students will practice skills involved in the treatment of arrest and peri-arrest patients. This course is intended for students accepted and enrolled in the Respiratory Therapy Program. [FHGE: Non-GE; Transferable: CSU]

RSPT 60C PULMONARY DIAGNOSTICS 3 Units

Prerequisite: RSPT 51C.

Not Repeatable.

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. [FHGE: Non-GE; Transferable: CSU]

RSPT 61A ADULT MECHANICAL VENTILATION 4 Units

Prerequisites: RSPT 50C and 51C.

Not Repeatable.

3 hours lecture, 3 hours lecture-laboratory.

This course is intended to help students develop and enhance the concepts and skills essential to meet the needs of patients placed on invasive and non-invasive ventilation. Overview of modes of ventilation, humidification and medication delivery. 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. Intended for students enrolled in the Respiratory Therapy Program. [FHGE: Non-GE; Transferable: CSU]

RSPT 61B PERINATAL RESPIRATORY CARE 3 Units

Prerequisite: RSPT 61A.

Not Repeatable.

2 hours lecture, 3 hours laboratory.

In depth look at Perinatal Respiratory Care. Examination and assessment of the neonate. Neonatal Respiratory diseases and disorders including treatment and management. Preparation for the Neonatal Resuscitation Program certification. This course is intended for students accepted and currently enrolled in the Respiratory Therapy Program. [FHGE: Non-GE; Transferable: CSU]

RSPT 61C HOME & REHABILITATIVE RESPIRATORY CARE 2 Units

Prerequisite: RSPT 61B.

Not Repeatable.

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. [FHGE: Non-GE; Transferable: CSU]

RSPT 61D PEDIATRIC RESPIRATORY CARE 2 Units

Prerequisite: RSPT 61B.

Not Repeatable.

2 hours lecture.

In depth look at Pediatric respiratory care. Examination and assessment of the pediatric patient. Pediatric Respiratory diseases and disorders including treatment and management. Preparation for the pediatric advanced life support certification. This course is intended for students accepted and currently enrolled in the Respiratory Therapy Program. [FHGE: Non-GE; Transferable: CSU]

RSPT 62 MANAGEMENT, RESUME & NATIONAL BOARD EXAMINATION 1 Unit

Prerequisite: RSPT 61B.
Not Repeatable.
1 hour lecture.

Management and leadership styles. Review of effective communication skills. Current health care economics, job outlook and interviewing skills. Resume, cover letter and thank you letter preparation. Students will be introduced to the NBRC Entry and Registry level detailed content outlines. Licensure and Exam applications and procedure for applying. Students will need to complete a self evaluation paper that lists areas they need to focus on. Students take the National Board for Respiratory Care Mock Entry-Level Examination. This course is intended for students accepted and enrolled in the Respiratory Therapy Program. [FHGE: Non-GE; Transferable: CSU]

RSPT 63A ADVANCED PATHOPHYSIOLOGY & PATIENT MANAGEMENT 3 Units

Prerequisite: RSPT 61A or Respiratory Care Practitioner status.
May be taken 3 times for credit.
3 hours lecture.

The assessment and treatment of patients with Cardiopulmonary Disease. This course is structured to help build higher order critical thinking and problem solving skills. Through the use of case studies and clinical simulations students will learn to place emphasis on information gathering and decision making for respiratory care patients. Helpful for NBRC Clinical Simulation Examination preparation. This course is intended for students accepted and enrolled in the Respiratory Therapy Program. [FHGE: Non-GE; Transferable: CSU]

RSPT 65 COMPUTER PATIENT SIMULATIONS .5 Unit

Prerequisite: RSPT 61A.
Not Repeatable.
2 hours laboratory.

Information gathering and decision making in the management of patients with acute and chronic respiratory conditions. This course is intended for students accepted and enrolled in the Respiratory Therapy Program. [FHGE: Non-GE; Transferable: CSU]

RSPT 70A CLINICAL ROTATION I 2 Units

Prerequisites: RSPT 50C and 51C.
Not Repeatable.
10 hours laboratory.

Exposure to hospital departments. Clinical application of respiratory therapy procedures. Interpretation of basic diagnostic data and correlation to applied therapies. [FHGE: Non-GE; Transferable: CSU]

RSPT 70B CLINICAL ROTATION II 6 Units

Prerequisites: RSPT 61A and 70A.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: CSU]

RSPT 70C CLINICAL ROTATION III 6 Units

Prerequisites: RSPT 61B and 70B.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: CSU]

RSPT 70D CLINICAL ROTATION IV 6 Units

Prerequisite: RSPT 70C.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: CSU]

RSPT 71A EXTENDED CLINICAL INTERNSHIP IN RESPIRATORY THERAPY 3 Units

Prerequisite: Admission to the Respiratory Therapy Program.
May be taken 2 times for credit.
24 hours clinic.

Extended clinical internship. Clinical internship in Adult ICU to include: floor tcare therapy, ventilator management, airway management, basic life support, bronchodilator therapy, bronchohygiene therapy and hemodynamic monitoring. [FHGE: Non-GE; Transferable: CSU]

RSPT 71B EXTENDED CLINICAL INTERNSHIP IN RESPIRATORY THERAPY 6 Units

Prerequisite: Admission to the Respiratory Therapy Program.
May be taken 2 times for credit.
48 hours clinic.

Extended clinical internship. Clinical internship in Adult ICU to include: floor tcare therapy, ventilator management, airway management, basic life support, bronchodilator therapy, bronchohygiene therapy and hemodynamic monitoring. [FHGE: Non-GE; Transferable: CSU]

RSPT 200L INTRODUCTION TO RESPIRATORY THERAPY 1 Unit

Non-degree applicable credit course.

Advisory: Students are not required to have been admitted to the Respiratory Therapy Program.
Not Repeatable.

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 and skills will also be introduced. [FHGE: Non-GE; Transferable: Not transferable]

ROTC

Foothill College participates in the Reserve Officer Training Corps (ROTC) programs at area universities so that students who want to earn ROTC credit may do so. Foothill College students can enroll in lower-division ROTC coursework which can ultimately result in a commission as an officer. 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.

SOCIAL SCIENCE

Business & Social Sciences

(650) 949-7322
www.foothill.edu/bss/

SOSC 20 CROSS-CULTURAL PERSPECTIVES FOR A MULTICULTURAL SOCIETY 4 Units

Not Repeatable.
4 hours lecture.

Analysis of the multi-ethnic 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. [FHGE: United States Cultures & Communities, Lifelong, Social & Behavioral Sciences; Transferable: 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. [FHGE: Non-GE; Transferable: CSU]

SOSC 35 DEPARTMENT HONORS PROJECT IN 1 Unit
 SOSC 35X SOCIAL SCIENCE 2 Units
 SOSC 35Y 3 Units
 SOSC 35Z 4 Units

May be taken 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. Enrollment is limited to 6 times within the SOSC 35 group. [FHGE: Non-GE; Transferable: CSU]

SOSC 36 SPECIAL PROJECTS IN 1 Unit
 SOSC 36W SOCIAL SCIENCE .5 Unit
 SOSC 36X 2 Units
 SOSC 36Y 3 Units
 SOSC 36Z 4 Units

May be taken 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. Enrollment is limited to 6 times within the SOSC 36 group. [FHGE: Non-GE; Transferable: CSU]

SOSC 37 INTRODUCTION TO 1 Unit
 CULTURAL PROGRAM

May be taken 4 times for credit.

3 hours laboratory.

practical field experience for students in cultural heritage month leadership positions. [FHGE: Non-GE; Transferable: CSU]

SOSC 79 INTRODUCTION TO 1 Unit
 COMMUNITY SERVICE

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. [FHGE: Non-GE; Transferable: CSU]

SOSC 155 STANDARDIZED TEST PREPARATION .5 Unit

Advisory: Pass/No Pass.

May be taken 6 times for credit.

.5 hour lecture.

Test-taking strategies for standardized college entrance tests. Analysis of test structure and content. Identification of areas of weakness; practice with those areas. [FHGE: Non-GE; Transferable: Not transferable]

SOSC 175 TUTOR TRAINING METHODS .5 Unit
Formerly: SOSC 75

Non-degree applicable credit course.

Prerequisite: 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 laboratory.

Introduction to theories and methods of effective tutoring, including role of a tutor, relationship of tutor to students and faculty. [FHGE: Non-GE; Transferable: Not transferable]

SOCIOLOGY

Business & Social Sciences

(650) 949-7322

www.foothill.edu/bss/

SOC 1 INTRODUCTION TO SOCIOLOGY 5 Units

Not Repeatable.

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. [FHGE: Social & Behavioral Sciences; Transferable: UC/CSU]

SOC 8 POPULAR CULTURE 4 Units

Not Repeatable.

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. [FHGE: United States Cultures & Communities; Transferable: UC/CSU]

SOC 10 RESEARCH METHODS & DESIGNS 5 Units

Prerequisite: PSYC 1; SOC 1.

Advisory: MATH 10; College-level reading and writing ability; not open to students with credit in PSYC 10.

Not Repeatable.

4 hours lecture, 3 hours laboratory.

Survey of the various quantitative and qualitative research methods. Emphasis on the research design, planning, experimental procedures, and the collection, analysis, interpretation, and reporting of data. Laboratory emphasis on group work, data entry, and analysis of data with statistical software. [FHGE: Social & Behavioral Sciences; Transferable: UC/CSU]

SOC 11 INTRODUCTION TO 5 Units
 SOCIAL WELFARE

Not Repeatable.

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. [FHGE: Social & Behavioral Sciences; Transferable: UC/CSU]

SOC 15 LAW & SOCIETY 4 Units

Not Repeatable.

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. [FHGE: Social & Behavioral Sciences; Transferable: UC/CSU]

SOC 19 ALCOHOL & DRUG ABUSE 4 Units

Not Repeatable.

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. [FHGE: Lifelong Understanding, Social & Behavioral Sciences; Transferable: UC/CSU]

SOC 20 MAJOR SOCIAL PROBLEMS 4 Units

Not Repeatable.

4 hours lecture.

An identification and analysis of contemporary social problems including (1) the role of power and ideology in the definition of social problems, (2) their causes and consequences, (3) evaluations of proposed solutions, and (4) methods of intervention. Topics will vary. [FHGE: Social & Behavioral Sciences; Transferable: 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; eligibility for ENGL 1A or ESLL 26.
Not Repeatable.
 4 hours lecture.
 Survey of gender issues based upon psychological and sociological theories and research. Examination of sex differences and sex role stereotyping in a global, multi-cultural approach. Appraisal of effects of biology, culture, and society in creating sex and gender differences. Consideration of major theories of gender development. Focus on biology, socialization, mass media, communication, personality, abilities, work, family, sex, and violence. [FHGE: Social & Behavioral Sciences; Transferable: UC/CSU]

SOC 23 RACE & ETHNIC RELATIONS 4 Units
Not Repeatable.
 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, socio-legal 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. [FHGE: United States Cultures & Communities, Social & Behavioral Sciences; Transferable: UC/CSU]

SOC 30 SOCIAL PSYCHOLOGY 4 Units
Advisory: Not open to students with credit in PSYC 30; College-level reading and writing ability.
Not Repeatable.
 4 hours lecture.
 Survey of human behavior in relation to the social environment. Focus on human interaction and the shaping of diverse and commonly-shared attitudes, beliefs and worldviews by society, culture and social groups. Emphasis on how individuals are influenced behaviorally, emotionally, and cognitively. Topics include but not limited to social cognition, aggression, interpersonal attraction, attitudes, social influence, prejudice and discrimination, gender, person perception, and cultural norms. [FHGE: Social & Behavioral Sciences; Transferable: UC/CSU]

SOC 34H HONORS INSTITUTE SEMINAR IN SOCIOLOGY 1 Unit
Formerly: SOC 34
Prerequisite: Honors Institute participant.
Advisory: Not open to students with credit in SOC 34.
Not Repeatable.
 1 hour lecture.
 A seminar in directed readings, discussions and projects in Sociology. Specific topics to be determined by the instructor. [FHGE: Non-GE; Transferable: CSU]

SOC 35 DEPARTMENT HONORS PROJECTS 1 Unit
SOC 35X IN SOCIOLOGY 2 Units
SOC 35Y 3 Units
SOC 35Z 4 Units
May be taken 6 times for credit.
 1 hour lecture for each unit of credit.
 Seminar in readings, research, critical techniques and practice. Specific topics vary. Enrollment is limited to 6 times within the SOC 35 group. [FHGE: Non-GE; Transferable: CSU]

SOC 36 SPECIAL PROJECTS IN SOCIOLOGY 1 Unit
SOC 36W .5 Unit
SOC 36X 3 Units
SOC 36Y 4 Units
SOC 36Z
May be taken 5 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. Enrollment is limited to 5 times within the SOC 36 group. [FHGE: Non-GE; Transferable: CSU]

SOC 40 ASPECTS OF MARRIAGE & FAMILY 4 Units
Not Repeatable.
 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. [FHGE: Lifelong Understanding, Social & Behavioral Sciences; Transferable: UC/CSU]

SOC 57 CHILD ADVOCACY 4 Units
Not Repeatable.
 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. [FHGE: Non-GE; Transferable: CSU]

SPANISH

Language Arts (650) 949-7131
www.foothill.edu/la/

SPAN 1 ELEMENTARY SPANISH I 5 Units
Not Repeatable.
 5 hours lecture.
 Development and practice of elementary speaking, listening, reading and writing skills in everyday language functions, with Spanish as the primary language of instruction. Language laboratory practice to reinforce pronunciation, grammar and syntax. Study of basic geographical, historical and cultural aspects of Spanish-speaking world areas. [FHGE: Humanities; Transferable: UC/CSU]

SPAN 2 ELEMENTARY SPANISH II 5 Units
Prerequisite: SPAN 1 or 1 year of high school Spanish.
Not Repeatable.
 5 hours lecture.
 Further development and practice of elementary speaking, listening, reading and writing skills in everyday language function, with Spanish as the primary language of instruction. Language laboratory practice to reinforce pronunciation, grammar and syntax. Study of basic geographical, historical and cultural aspects of Spanish-speaking world areas. [FHGE: Humanities; Transferable: UC/CSU]

SPAN 3 ELEMENTARY SPANISH III 5 Units
Prerequisite: SPAN 2 or two years of high school Spanish.
Not Repeatable.
 5 hours lecture.
 Further development and practice of elementary speaking, listening, reading and writing skills in everyday language functions, with focus on greater structural accuracy and communicative competence, and with Spanish as the language of instruction. Language laboratory practice to reinforce pronunciation, grammar and syntax. Study of basic geographical, historical and cultural aspects of Spanish-speaking world areas. [FHGE: Humanities; Transferable: UC/CSU]

<p>SPAN 4 INTERMEDIATE SPANISH I 5 Units Prerequisite: SPAN 3 or 3 years of high school Spanish. Not Repeatable. 5 hours lecture. Reading and discussion of texts dealing with the literature, arts, geography, history and culture of the Spanish-speaking world. Review and further development of the grammatical structures of first-year Spanish with emphasis on building communicative competence and expanding vocabulary about familiar topics and idiomatic usage. Writing and reading assignments based upon topics discussed in class. [FHGE: Humanities; Transferable: UC/CSU]</p>	<p>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. [FHGE: Humanities; Transferable: UC/CSU]</p>
<p>SPAN 5 INTERMEDIATE SPANISH II 5 Units Prerequisite: SPAN 4 or four years of high school Spanish. Not Repeatable. 5 hours lecture. Reading and discussion of texts dealing with the literature, arts, geography, history and culture of the Spanish-speaking world. Review and further development of the grammatical structures of first-year Spanish with emphasis on building communicative competence and expanding concrete vocabulary about new topics, and idiomatic usage. Writing and reading assignments based upon topics discussed in class. [FHGE: Humanities; Transferable: UC/CSU]</p>	<p>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 aural/oral 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. [FHGE: Humanities; Transferable: UC/CSU]</p>
<p>SPAN 6 INTERMEDIATE SPANISH III 5 Units Prerequisite: SPAN 5. Not Repeatable. 5 hours lecture. Reading and discussion of texts dealing with the literature, arts, geography, history and culture of the Spanish-speaking world. Review and further development of the grammatical structures of first-year Spanish with emphasis on building communicative competence and expanding abstract vocabulary, and idiomatic usage. Writing and reading assignments based upon topics discussed in class. [FHGE: Humanities; Transferable: UC/CSU]</p>	<p>SPAN 25A ADVANCED COMPOSITION & READING I 4 Units Prerequisite: SPAN 6. Not Repeatable. 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. [FHGE: Humanities; Transferable: UC/CSU]</p>
<p>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. 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. [FHGE: Humanities; Transferable: UC/CSU]</p>	<p>SPAN 25B ADVANCED COMPOSITION & READING II 4 Units Prerequisite: SPAN 25A. Not Repeatable. 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. [FHGE: Humanities; Transferable: UC/CSU]</p>
<p>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 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 historical and political issues based on authentic texts, current news broadcasts, and/or films. Develop critical thinking skills by comparing different viewpoints and different values of diverse cultures. [FHGE: Humanities; Transferable: UC/CSU]</p>	<p>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. Not Repeatable. 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. [FHGE: Non-GE; Transferable: Not transferable]</p>

THEATRE ARTS

Fine Arts & Communication

(650) 949-7262

THTR 1 THEATRE ARTS APPRECIATION 4 Units

Advisory: Not open to students with credit in DRAM 1.

Not Repeatable.

4 hours lecture.

Live performance in an electronic age - an overview of the status of live theatre including its historical, cultural and spiritual roots. [FHGE: Humanities; Transferable: UC/CSU]

THTR 2A INTRODUCTION TO DRAMATIC LITERATURE 4 Units

Prerequisite: Eligibility for ENGL 1A.

Advisory: Not open to students with credit in ENGL 42A or DRAM 2A.

Not Repeatable.

4 hours lecture.

Analysis of representative masterpieces of dramatic literature from Aeschylus to the English Renaissance Period and including Asian Theatre. [FHGE: Humanities; Transferable: UC/CSU]

THTR 2B INTRODUCTION TO DRAMATIC LITERATURE 4 Units

Prerequisite: Eligibility for ENGL 1A.

Advisory: Not open to students with credit in ENGL 42B or DRAM 2B.

Not Repeatable.

4 hours lecture.

Analysis of representative masterpieces of dramatic literature from the Elizabethan Period to the end of the 19th Century. [FHGE: Humanities; Transferable: UC/CSU]

THTR 2C INTRODUCTION TO DRAMATIC LITERATURE 4 Units

Prerequisite: Eligibility for ENGL 1A.

Advisory: Not open to students with credit in ENGL 42C or DRAM 2C.

Not Repeatable.

4 hours lecture.

Analysis of representative masterpieces of dramatic literature from the beginning of the 20th Century to the present. [FHGE: Humanities; Transferable: UC/CSU]

THTR 5B PLAYWRITING 4 Units

Prerequisite: ENGL 1A eligible.

Advisory: Not open to students with credit in CRWR 36B, DRAM 5B, 55B or VART 5B.

Not Repeatable.

4 hours lecture, 1 hour laboratory.

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. [FHGE: Humanities; Transferable: UC/CSU]

THTR 5C INTERMEDIATE PLAYWRITING 4 Units

Advisory: THTR 5B.

May be taken 2 times for credit.

4 hours lecture, 1 hour laboratory.

Intermediate studies in writing for the stage. Examination of plot layers, in-depth character design and development, intermediate story structure, dialogue, and the use of the spaces between the words, in writing a one-act (30-60 pages) play, with an emphasis on understanding the unique visual, imaginative, and cross-cultural nature of writing for the theater. [FHGE: Non-GE; Transferable: CSU]

THTR 6 ADVANCED PLAYWRITING 4 Units

Advisory: THTR 5B.

May be taken 3 times for credit.

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 theater. [FHGE: Non-GE; Transferable: CSU]

THTR 7 INTRODUCTION TO DIRECTING 4 Units

Advisory: Instructor approval based on audition/interview and subsequent enrollment into Foothill Theatre Conservatory.

Cerequisite: Completion of or concurrent enrollment in THTR 81.

May be taken 3 times for credit.

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. [FHGE: Non-GE; Transferable: UC/CSU]

THTR 8 MULTICULTURAL THEATRE ARTS IN MODERN AMERICA 4 Units

Advisory: Not open to students with credit in DRAM 8.

Not Repeatable.

4 hours lecture.

A comparative study of the important post-modern American theatre 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. [FHGE: United States Cultures & Communities, Humanities; Transferable: UC/CSU]

THTR 20A ACTING I 4 Units

Advisory: Not open to students with credit in DRAM 20A.

Not Repeatable.

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. [FHGE: Humanities; Transferable: UC/CSU]

THTR 20B ACTING II 4 Units

Advisory: THTR 20A or equivalent highly recommended; not open to students with credit in DRAM 20B.

Not Repeatable.

3 hours lecture, 3 hours laboratory.

Further development of concepts introduced in THTR 20A, with emphasis to expanding the students' performance potential through probing greater depths of character analysis and text interpretation. [FHGE: Humanities; Transferable: UC/CSU]

THTR 20C ACTING III 4 Units

Advisory: THTR 20A & 20B or equivalent highly recommended; not open to students with credit in DRAM 20C.

Not Repeatable.

3 hours lecture, 3 hours laboratory.

Further development of 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. [FHGE: Humanities; Transferable: UC/CSU]

THTR 20D ACTING IV 4 Units

Advisory: THTR 20A, 20B and 20C or equivalent highly recommended; sections of this class are frequently featured in the Foothill Theatre Conservatory schedule, requiring instructor approval; not open to students with credit in DRAM 20D.

Not Repeatable.

3 hours lecture, 3 hours laboratory.

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. [FHGE: Humanities; Transferable: UC/CSU]

THTR 20E ADVANCED ACTING V 4 Units
Advisory: THTR 20A, 20B, 20C, and 20D or equivalent is highly recommended; sections of this class are frequently offered through the Foothill Theatre Conservatory requiring instructor approval; not open to students with credit in DRAM 20E.
May be taken 6 times for credit.
3 hours lecture, 3 hours laboratory.
 Further development of concepts introduced in THTR 20A, 20B, 20C, and 20D with targeted performance assignments designed to develop the advanced student's range and ability in approaching demanding actor challenges. [FHGE: Non-GE; Transferable: UC/CSU]

THTR 21 INTRODUCTION TO 1 Unit
TECHNICAL THEATRE
Advisory: Concurrent enrollment in THTR 21A; not open to students with credit in DRAM 21.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: UC/CSU]

THTR 21A SCENERY & 3 Units
PROPERTY CONSTRUCTION
Advisory: Not open to students with credit in DRAM 21A.
Corequisites: THTR 21.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: UC/CSU]

THTR 21B INTERMEDIATE SCENERY & 3 Units
PROPERTY CONSTRUCTION
Prerequisite: THTR 21A.
Advisory: Not open to students with credit in DRAM 21B.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: UC/CSU]

THTR 21C ADVANCED SCENERY & 3 Units
PROPERTIES CONSTRUCTION
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 tools, materials, rigging and construction techniques used in the construction of scenery and properties for the stage. [FHGE: Non-GE; Transferable: UC/CSU]

THTR 22 AUDITIONING FOR THEATRE 2 Units
Formerly: THTR 53
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. [FHGE: Non-GE; Transferable: UC/CSU]

THTR 23 ACTING FOR FILM & TELEVISION 2 Units
THTR 23X 4 Units
Formerly: THTR 62
Prerequisite: THTR 20A.
May be taken 6 times for credit.
1.5 hours lecture, 1.5 hours laboratory for each 2 units of credit.
 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. [FHGE: Non-GE; Transferable: UC/CSU]

THTR 25 INTRODUCTION TO FASHION & 4 Units
COSTUME CONSTRUCTION
Formerly: THTR 75
Corequisite: Completion of, or concurrent enrollment in THTR 21A, 21B or 21C.
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. [FHGE: Non-GE; Transferable: UC/CSU]

THTR 26 INTRODUCTION TO FASHION 4 Units
HISTORY & COSTUME DESIGN
Formerly: THTR 76
Advisory: Not open to students with credit in DRAM 76 or THTR 76.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: UC/CSU]

THTR 31 FUNDAMENTALS OF 2 Units
STAGE MANAGEMENT
Formerly: THTR 71
Advisory: THTR 20A or concurrent enrollment in THTR 21A, 21B, or 21C; not open to students with credit in DRAM 71, THTR 71, or 71X.
Not Repeatable.
2 hours lecture.
 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. [FHGE: Non-GE; Transferable: UC/CSU]

THTR 31L THEATRE PRODUCTION 2 Units
MANAGEMENT LABORATORY
Formerly: THTR 71
Advisory: Application and permission of instructor required.
May be taken 3 times for credit.
6 hours laboratory.
 Practical experience working in a management position for a theatrical production. Practice in theatre production management procedures related to the rehearsal and performance process. Practice in production administration through participation in the planning and managing of a theatrical production. [FHGE: Non-GE; Transferable: UC/CSU]

THTR 35 DEPARTMENT HONORS PROJECTS 2 Units
IN DRAMA
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. [FHGE: Non-GE; Transferable: CSU]

THTR 38 MOVEMENT PRACTICUM FOR THE ACTOR 2 Units

Formerly: THTR 58

Advisory: Instructor approval through audition/interview and subsequent enrollment into the Foothill Theatre Conservatory.
Corequisite: Completion of or concurrent enrollment in THTR 81.

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; 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. [FHGE: Non-GE; Transferable: UC/CSU]

THTR 38D MOVEMENT FOR THE ACTOR: STAGE COMBAT 1 Unit

Advisory: Instructor approval through audition/interview and subsequent enrollment into Foothill Theatre Conservatory; concurrent enrollment in THTR 81.

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. [FHGE: Non-GE; Transferable: UC/CSU]

THTR 40A BASIC THEATRICAL MAKE-UP 4 Units

Advisory: Concurrent enrollment in THTR 81; Instructor approval through audition/interview and subsequent enrollment into Foothill Theatre Conservatory.

Not Repeatable.

3 hours lecture, 3 hours laboratory.

A practical introduction to the techniques of applying theatrical make-up for the stage. [FHGE: Non-GE; Transferable: UC/CSU]

THTR 40B THEATRICAL MAKE-UP FOR PRODUCTION 4 Units

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. [FHGE: Non-GE; Transferable: UC/CSU]

THTR 42 INTRODUCTION TO SCENE DESIGN 4 Units

Prerequisite: ART 4A or equivalent.

Advisory: Not open to students with credit in DRAM 42C or THTR 42A.
May be taken 3 times for credit.

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. [FHGE: Non-GE; Transferable: UC/CSU]

THTR 43A FOUNDATIONS IN REALISTIC ACTING 4 Units

Advisory: Instructor approval through audition/interview and subsequent enrollment into Foothill Theatre Conservatory.

Corequisite: Completion of or concurrent enrollment in THTR 81.

May be taken 2 times for credit.

3 hours lecture, 3 hours laboratory.

This course imbues students with the fundamental building blocks of Stanislavsky based theory and technique of Realism in stage acting. Students will actively transfer the foundational elements of Modern Realistic acting and the components thereof from study to analysis to performance. This groundwork provides the basis by which exploration of more in-depth acting challenges and genres can be developed. [Transferable: CSU]

THTR 43B CONTEMPORARY METHODOLOGIES IN ACTING 4 Units

Advisory: Instructor approval through audition/interview and subsequent enrollment into Foothill Theatre Conservatory.

Corequisite: Completion of or concurrent enrollment in THTR 81.

May be taken 2 times for credit.

3 hours lecture, 3 hours laboratory.

A deepened exploration of the craft of the experienced actor. The focus of the class is to enable the actor to have a more 'in the moment' experience of acting through improvisational work and exposure to the 'Trigger Approach' and/or similar acting methodologies in combination with scene work. The goal in turn is to reduce anticipation and fear, deepen and expand character exploration, enhance ability to listen and connect with others on stage, and ultimately create more spontaneous, rich and interesting performances. [FHGE: Non-GE; Transferable: UC/CSU]

THTR 43C FOUNDATIONS IN CLASSICAL ACTING 4 Units

Advisory: Instructor approval through audition/interview and subsequent enrollment into Foothill Theatre Conservatory.

Corequisite: Completion of or concurrent enrollment in THTR 81.

May be taken 2 times for credit.

3 hours lecture, 3 hours laboratory.

Introduction to the specific acting challenges presented by performing classical scripts—pre-18th century. Students will incorporate skills of language analysis, verbal acumen and physical interpretation into performance preparation and execution as they specifically relate to classical texts. [FHGE: Non-GE; Transferable: UC/CSU]

THTR 43D FOUNDATIONS IN COMIC STYLES 4 Units

Advisory: Instructor approval through audition/interview and subsequent enrollment into Foothill Theatre Conservatory.

Corequisite: Completion of or concurrent enrollment in THTR 81.

May be taken 2 times for credit.

3 hours lecture, 3 hours laboratory.

Introduction to the specific acting challenges presented by performing roles from the varying genres of comedic literature 1650-1950. Students will incorporate skills of language analysis, verbal acumen, dialect incorporation, dictated social behaviors/constructs and physical embodiment into performance preparation and execution as they specifically relate to comedic texts. [FHGE: Non-GE; Transferable: UC/CSU]

THTR 43E IMPROVISATION 4 Units

Advisory: Instructor approval through audition/interview and subsequent enrollment into Foothill Theatre Conservatory.

Corequisite: Completion of or concurrent enrollment in THTR 81.

May be taken 3 times for credit.

3 hours lecture, 3 hours laboratory.

This course imbues students with the fundamentals and graduating skills of organic performance without script or text. Students will practically apply the theories of improvisational basic skills, universally translated to virtually all forms of improvisation, towards performance. [FHGE: Non-GE; Transferable: UC/CSU]

THTR 43G ACTOR MARKETING STRATEGIES 2 Units

Advisory: Concurrent enrollment in THTR 81; successful completion of THTR 43A; Instructor approval through audition/interview and subsequent enrollment into Foothill Theatre Conservatory.

May be taken 3 times for credit.

1.5 hours lecture, 1.5 hours laboratory.

Developing effective marketing strategies for a career in theatre. The actor's process in preparation for theatrical auditions, selection of appropriate audition performance pieces, the presentation of self in various audition settings, and the development of industry standard self-promotion materials. Performance will include at least two prepared monologues, and multiple cold reading and prepared sides with a focus on stage auditioning. [FHGE: Non-GE; Transferable: CSU]

THTR 44 PRODUCTION PROJECTS 4 Units
THTR 44X 2 Units
Advisory: Instructor approval through audition/interview and subsequent enrollment into Foothill Theatre Conservatory.
Corequisite: Completion of or concurrent enrollment in THTR 81.
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. [FHGE: Non-GE; Transferable: UC/CSU]

THTR 47 MUSIC THEATRE 2 Units
THTR 47X PRODUCTION WORKSHOP 6 Units
Advisory: Course may be subject to instructor approval or audition.
May be taken 6 times for credit.
6 hours laboratory for 2 units of credit.
 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. Enrollment is limited to 6 times within the THTR 47 group. [FHGE: Non-GE; Transferable: UC/CSU]

THTR 48 VOICE PRACTICUM FOR THE ACTOR 2 Units
Advisory: Instructor approval through audition/interview and subsequent enrollment in the Foothill Theatre Conservatory.
Corequisite: Concurrent enrollment in or completion of THTR 81.
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. [FHGE: Non-GE; Transferable: UC/CSU]

THTR 49 REHEARSAL & PERFORMANCE 2 Units
THTR 49X 4 Units
THTR 49Y 6 Units
Prerequisite: Enrollment subject to audition.
May be taken 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. Enrollment is limited to 6 times within the THTR 49 group. [FHGE: Non-GE; Transferable: UC/CSU]

THTR 50 PRODUCTION PROJECTS IN THEATRE 2 Units
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. [FHGE: Non-GE; Transferable: UC/CSU]

THTR 50B LEADERSHIP & ORGANIZATION FOR PRODUCTION 2 Units
Prerequisite: THTR 50
May be taken 6 times for credit.
2 hours lecture-laboratory, 3 hours laboratory.
 This course teaches the necessary leadership and organizational skills for the full development of an organic, original production from inception to performance. Advanced students will take charge in producing a full-length production consisting of several student-generated short plays. Student responsibilities will extend to the areas of group coordination and organization in writing, acting, directing, lighting design, costume design, scenery and properties design, sound design, stage management and technical responsibilities, make-up design and publicity. The quarter culminates with several public performances. [FHGE: Non-GE; Transferable: CSU]

THTR 53 AUDITIONING FOR THEATRE 2 Units
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. [FHGE: Non-GE; Transferable: UC/CSU]

THTR 54 ACTOR'S WORKSHOP 3 Units
Prerequisite: THTR 20C or 43C.
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. [FHGE: Non-GE; Transferable: UC/CSU]

THTR 55 SPECIAL PROJECTS IN THEATRE 2 Units
Formerly: THTR 35
Prerequisite: Audition/interview with instructor.
May be taken 6 times for credit.
7 hours laboratory.
 Individual advanced projects in acting, theatre production, stage craft, design or theatre research. [FHGE: Non-GE; Transferable: CSU]

THTR 63A FILM & TELEVISION ACTING WORKSHOP 4 Units
Advisory: Instructor approval based on audition/ interview and subsequent enrollment into Foothill Theatre Conservatory.
Corequisite: Completion of or concurrent enrollment in THTR 81.
May be taken 3 times for credit.
3 hours lecture, 3 hours laboratory.
 Application of concepts developed in the stage acting classes with the necessary adaptations required for film and television performance. Work with the variety of styles currently used in film and television, including commercial, dramatic, documentary and industrial. Class time will be divided between lecture, workshops and on-camera performance time to learn and experiment with the subject matter. [FHGE: Non-GE; Transferable: CSU]

THTR 63B **FILM & TELEVISION ACTING
CAREER PREPARATION** **2 Units**
Advisory: Instructor approval based on audition/ interview and subsequent enrollment into Foothill Theatre Conservatory.
Corequisite: Completion of or concurrent enrollment in THTR 81.
May be taken 3 times for credit.
1.5 hours lecture, 1.5 hours laboratory.
 This class prepares the actor for a career in film and television. Class time will be divided between lecture and on-camera time to learn and experiment with subject matter. Performance will include improvisation, cold-reading and prepared script work as it pertains to commercial, dramatic and industrial styles currently used within the medium. Students will practice a variety of different possible auditioning scenarios and strategies, and develop appropriate self-promotion materials. [FHGE: Non-GE; Transferable: CSU]

THTR 79 **MODEL BUILDING FOR THEATRE,
FILM & TELEVISION** **4 Units**
Advisory: Not open to students with credit in DRAM 79.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: CSU]

THTR 80 **RECORDING ARTS I:
SOUND REINFORCEMENT** **4 Units**
Advisory: Not open to students with credit in DRAM 80 or MUS 80 or 80A.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: CSU]

THTR 81 **CONTEMPORARY ISSUES IN
PERFORMANCE SEMINAR** **1 Unit**
Advisory: Instructor approval based on audition/interview and subsequent enrollment into 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. [FHGE: Non-GE; Transferable: CSU]

THTR 85 **DIRECTED FIELD STUDY IN THEATRE** **1 Unit**
THTR 85X **2 Units**
THTR 85Y **3 Units**
THTR 85Z **4 Units**
May be taken 6 times for credit.
.5 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. Enrollment is limited to 6 times within the THTR 85 group. [FHGE: Non-GE; Transferable: CSU]

THTR 95 **THEATRE SUMMER** **3 Units**
THTR 95X **STOCK WORKSHOP** **7 Units**
Advisory: Enrollment subject to audition.
May be taken 6 times for credit.
9 hours laboratory for 3 units 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. Enrollment is limited to 6 times within the THTR 95 group. [FHGE: Non-GE; Transferable: UC/CSU]

THTR 97 **ACTORS' ENSEMBLE** **1 Unit**
THTR 97X **2 Units**
THTR 97Y **4 Units**
THTR 97Z **6 Units**
Prerequisite: Enrollment subject to audition.
Advisory: Pass/No Pass.
May be taken 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. Enrollment is limited to 6 times within the THTR 97 group. [FHGE: Non-GE; Transferable: UC/CSU]

THTR 99 **THEATRE WORKSHOP** **3 Units**
THTR 99X **6 Units**
Prerequisite: Enrollment subject to audition.
Advisory: Pass/No Pass.
May be taken 6 times for credit.

1.5 hours lecture-laboratory, 7.5 hours laboratory for 3 units of credit.
 A laboratory course in stage production, culminating in a practical theatre production. Areas of study and investigation include acting voice and diction, movement, dance, theatre styles, stage management and stage crafts. Culminates in a full-scale production performed for a public audience. Enrollment is limited to 6 times within the THTR 99 group. [FHGE: Non-GE; Transferable: UC/CSU]

VETERINARY TECHNOLOGY

Biological & Health Sciences **(650) 949-7538**
www.foothill.edu/bio/programs/vettech/

V T 50 **CURRENT TOPICS IN
VETERINARY TECHNOLOGY** **.5 Unit**
Prerequisites: Admission to the Veterinary Technology Program.
Advisory: Pass/No Pass.
May be taken 6 times for credit.
1 hour lecture-laboratory.

A series of three-hour lectures, lecture-demonstrations, multimedia presentations, live demonstrations, or hands-on workshops presented once monthly (3 times per quarter) by the instructor, professionals in veterinary medicine, veterinary technology, or the animal health-related fields. A variety of content is presented in order to provide current topical and practical information in the animal care field. Guest presenters will include veterinarians, specialists, veterinary technicians, animal handlers, administrative professionals and educators. All veterinary technology students are required to enroll each quarter, but the seminar may be taken by any student for personal interest. Unregistered veterinary assistants, and other members of the veterinary paraprofessional staff may also enroll. [FHGE: Non-GE; Transferable: CSU]

V T 51 **INTRODUCTION TO
VETERINARY TECHNOLOGY** **1.5 Units**
Prerequisites: Admission to the Veterinary Technology Program.
Not Repeatable.
1 hour lecture, 2 hours lecture-laboratory.

A prerequisite for admission to the Veterinary Technology Program. Orientation to the program requirements and curriculum. Survey of the role of the veterinary assistant and registered 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. [FHGE: Non-GE; Transferable: CSU]

V T 52A **VETERINARY ASSISTING I** **5 Units**
Prerequisite: Admission to the Veterinary Technology Program.
Not Repeatable.
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.) The student will prepare

for an exciting career as a Veterinary Assistant by learning the essential knowledge and hands-on skills. Emphasis is on the practical aspects of front office management, working as part of the veterinary health care team, basic animal care, and fundamentals of patient management under direct supervision. The course is entirely on-line and may be taken as a stand-alone class or may be combined with V T 52B and V T 88A & V T 88B Clinical Preceptorships to earn a Veterinary Assisting Program Certificate of Completion. [FHGE: Non-GE; Transferable: CSU]

V T 52B VETERINARY ASSISTING II 5 Units

Prerequisite: Admission to the Veterinary Technology Program.

Not Repeatable.

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.) The student will prepare for an exciting career as a Veterinary Assistant by learning the essential knowledge and hands-on skills. Emphasis is on the practical aspects of front office management, working as part of the veterinary health care team, basic animal care, and fundamentals of patient management under direct supervision. The course is entirely on-line and may be taken as a stand-alone class or may be combined with V T 52A and V T 88A & V T 88B Clinical Preceptorships to earn a Veterinary Assisting Program Certificate of Completion. [FHGE: Non-GE; Transferable: CSU]

V T 53A MEDICAL TERMINOLOGY 1 Unit

Prerequisite: Admission to the Veterinary Technology Program.

Not Repeatable.

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. [FHGE: Non-GE; Transferable: CSU]

V T 53B MEDICAL CALCULATIONS 1 Unit

Prerequisite: Admission to the Veterinary Technology Program.

Not Repeatable.

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. [FHGE: Non-GE; Transferable: CSU]

V T 53C INTRODUCTION TO LARGE ANIMAL CARE 1 Unit

Prerequisite: Admission to the Veterinary Technology Program.

Not Repeatable.

2 hours lecture-laboratory, 1 hour case study.

Introduction to principles of husbandry and veterinary nursing care of common domestic large animal species. Breed identification; housing and restraint; physical examination; administration of medication and therapeutics; nutrition and feeding; common diseases; common large animal clinical procedures. [FHGE: Non-GE; Transferable: CSU]

V T 53D INTRODUCTION TO DAIRY CATTLE HEALTH MANAGEMENT 2 Units

Advisory: Must be a student in good standing in the Veterinary Technology Program or a current Hidden Villa Farm Intern.

Not Repeatable.

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 dairy and beef cattle. 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. [FHGE: Non-GE; Transferable: 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.

Not Repeatable.

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. Course intended for students enrolled in the Veterinary Technology Program. [FHGE: Non-GE; Transferable: 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.

Not Repeatable.

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. Course intended for students enrolled in the Veterinary Technology Program. [FHGE: Non-GE; Transferable: CSU]

V T 54A COMPARATIVE VETERINARY ANATOMY & PHYSIOLOGY FOR THE VETERINARY TECHNICIAN 5 Units

Prerequisites: Admission to the Veterinary Technology Program; V T 51 or equivalent.

Advisory: ENGL 1A, ESLL 26 or equivalent; CHEM 30A or equivalent.

Not Repeatable.

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. This course is intended for students enrolled in the Veterinary Technology Program. [FHGE: Non-GE; Transferable: CSU]

V T 54B COMPARATIVE VETERINARY ANATOMY & PHYSIOLOGY FOR THE VETERINARY TECHNICIAN 5 Units

Prerequisites: V T 54A; V T 51 or equivalent.

Advisory: ENGL 1A, ESLL 26 or equivalent; CHEM 30A or equivalent.

Not Repeatable.

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 pathophysiology of disease. This course is intended for students enrolled in the Veterinary Technology Program. [FHGE: Non-GE; Transferable: CSU]

VT 55 ANIMAL MANAGEMENT & CLINICAL SKILLS I 4 Units
Prerequisite: Admission to the Veterinary Technology Program.
Not Repeatable.
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. Orientation to the Veterinary Technology Program. Occupational health and safety. Animal handling and restraint. Administration of medication. Assessing dehydration and basic fluid administration. Introduction to anesthetic equipment, procedures and recovery. Principles of aseptic technique, sanitation, disinfection and sterilization. Principles of surgical nursing and instrumentation. Euthanasia, grief and pet loss support. Principles of animal behavior, socialization, basic obedience and common behavior problems. Wound healing, basic wound care and suture material. [FHGE: Non-GE; Transferable: CSU]

VT 56 ANIMAL MANAGEMENT & CLINICAL SKILLS II 4 Units
Prerequisite: Admission to the Veterinary Technology Program.
Not Repeatable.
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. Instruction and practical experience in the basic principles and techniques of wound healing, bandage and suture material. Basic radiography and electrocardiography. Venipuncture for catheter placement, blood collection, and intravenous administration of fluids and medications. Troubleshooting of intravenous catheter set-ups. Patient examination and assessment. Bandaging 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. [FHGE: Non-GE; Transferable: CSU]

VT 60 VETERINARY OFFICE PRACTICE 2 Units
Prerequisite: Admission to the Veterinary Technology Program.
Not Repeatable.
2 hours lecture, 1 hour case study.
 Principles and practice of veterinary office management for veterinary technology students. Client relations, receptionist skills, telephone techniques, interpersonal skills, and personnel management. Generation and maintenance of correspondence, medical records, legal forms, and hospital logs. Basic bookkeeping, accounting, and financial management principles. Marketing and public relations. Professional ethics and professionalism. Use of computers for data entry, patient record management and inventory control. Use of practice management software. State and federal laws as they apply to the veterinary practice. [FHGE: Non-GE; Transferable: CSU]

VT 61 ANIMAL DISEASES 5 Units
Advisory: Second year standing in the Veterinary Technology Program; completion of general microbiology strongly recommended.
Not Repeatable.
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. 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. Etiology, pathogenesis, clinical signs and clinical management of selected developmental, degenerative, nutritional, metabolic, endocrine, immune-mediated, and neoplastic diseases. Principles of vaccination, disease prevention, public health, client education, and zoonosis. Diagnostic techniques, including gross and microscopic identification of common veterinary pathogens. [FHGE: Non-GE; Transferable: CSU]

VT 66 EXOTIC ANIMAL CARE 1 Unit
Prerequisites: V T 51 or equivalent; CHEM 30A, BIOL 41; V T 53A, 53B, 53C, 54B, 55, 56 and 60.
Advisory: ENGL 1A, ESLL 26 or equivalent.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: CSU]

VT 70 FUNDAMENTALS OF VETERINARY DIAGNOSTIC IMAGING 4 Units
Prerequisite: Admission to the Veterinary Technology Program.
Not Repeatable.
3 hours lecture, 3 hours laboratory, 1 hour internet research.
 Introduction to the principles of veterinary radiography and ultrasonography for veterinary technician students, including radiographic and ultrasonographic terminology. Physics of X-ray and ultrasound production and interaction with matter. Occupational safety and radiation protection. Proper use and maintenance of standard and digital x-ray equipment. Radiographic exposure factors, technique chart development and usage, and patient positioning required for production of diagnostic radiographs. Processing of radiographic film. Discussion of equipment materials and special radiographic studies common in veterinary practice. Radiographic exposure troubleshooting and common artifacts. [FHGE: Non-GE; Transferable: CSU]

VT 72 PRINCIPLES OF VETERINARY DENTISTRY 2 Units
Prerequisite: Admission to the Veterinary Technology Program.
Not Repeatable.
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 dental prophylaxis and dental assisting. 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, models, and live animal patients. Care and use of common instruments and equipment. [FHGE: Non-GE; Transferable: CSU]

VT 75A ANIMAL CARE SKILLS I 1 Unit
Prerequisite: Admission to the Veterinary Technology Program.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: CSU]

VT 75B ANIMAL CARE SKILLS II 1 Unit
Prerequisite: V T 75A.
Not Repeatable.
3 hours laboratory.
 Continuation of V T 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. 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. [FHGE: Non-GE; Transferable: CSU]

- VT 75C ANIMAL CARE SKILLS III 1 Unit**
Prerequisite: V T 75B.
Not Repeatable.
3 hours laboratory.
 Continuation of V T 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. [FHGE: Non-GE; Transferable: CSU]
- VT 75D ANIMAL CARE SKILLS IV 1 Unit**
Prerequisite: V T 75C.
Not Repeatable.
3 hours laboratory.
 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. Level of responsibility increases to that of a second year student in the veterinary technology program as they take over the lead nurse responsibilities. Opportunity to lead 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 more advanced principles and application of clinical facility management, care of resident teaching animals, and routine maintenance duties. Degree of supervision is low with students working independently under indirect supervision of the instructor. Enhanced requirements of reporting and record keeping. This course is intended for students in the Veterinary Technology program. [FHGE: Non-GE; Transferable: CSU]
- VT 81 CLINICAL PATHOLOGY METHODS 5 Units**
Prerequisite: Admission to the Veterinary Technology Program.
Not Repeatable.
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, coagulation assessment, blood biochemistry and immunological testing, serology, clinical parasitology, 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 and quality assurance. [FHGE: Non-GE; Transferable: CSU]
- VT 83 PHARMACOLOGY FOR TECHNICIANS 4 Units**
Prerequisite: Admission to the Veterinary Technology Program.
Not Repeatable.
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. This course is intended for students enrolled in the Veterinary Technology Program. [FHGE: Non-GE; Transferable: CSU]
- VT 84 ANESTHESIOLOGY FOR TECHNICIANS 5 Units**
Prerequisite: V T 83 and 92.
Not Repeatable.
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. This course is intended for students in the Veterinary Technology Program. [FHGE: Non-GE; Transferable: CSU]
- VT 85 VETERINARY EMERGENCY & CRITICAL CARE 4 Units**
Prerequisite: Admission to the Veterinary Technology Program.
Not Repeatable.
3 hours lecture, 3 hours laboratory, 1 hour case study.
 Theoretical and practical aspects of assisting the veterinarian in the management of medical and traumatic emergencies. Recognition and assessment of cardiovascular shock, respiratory crisis, gastrointestinal emergency, and musculoskeletal trauma. Principles and techniques of fluid therapy and administration of emergency drugs. Application of treatment protocols for shock, cardiopulmonary arrest, gastrointestinal crisis, wounds and fractures, toxicoses, and dystocia. Nutrition of critical care patients. Maintenance of emergency medical equipment and supplies. This course is intended for students enrolled in the Veterinary Technology Program. [FHGE: Non-GE; Transferable: CSU]
- VT 86 LABORATORY ANIMAL TECHNOLOGY 4 Units**
Prerequisite: Admission to the Veterinary Technology Program.
Not Repeatable.
4 hours lecture, 1 hour case study.
 Study of the husbandry, care, management, and nursing care of rabbits, rodents kept as companion animals. Orientation to the humane and ethical use of animals in research and to the animal advocate and nursing roles of the veterinary technician in a biomedical research animal facility. Regulations affecting the use of animals in research are discussed. Proper methods of restraint and handling; husbandry and housing; feeding and nutrition; medical and surgical nursing techniques 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. [FHGE: Non-GE; Transferable: CSU]
- VT 86L LABORATORY ANIMAL METHODS 1 Unit**
Prerequisite: Admission to the Veterinary Technology Program.
Not Repeatable.
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 practices 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. [FHGE: Non-GE; Transferable: CSU]
- VT 87A ADVANCED ANIMAL CARE SKILLS I 1 Unit**
Prerequisite: Admission to the Veterinary Technology Program.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: CSU]

VT 87B ADVANCED ANIMAL CARE SKILLS II 1 Unit
Prerequisite: Admission to the Veterinary Technology Program.
Not Repeatable.
3 hours laboratory.

Continuation of VT 87A. Continuing instruction of first-year students in basic principles of facilities management and maintenance care of resident animals. Supervisory responsibilities will expand to include the formulation of work schedules, performing diagnostic and therapeutic procedures on resident animals, and performance evaluations of first-year students. The student will be involved in open lab sessions training first-year students in technical procedures. [FHGE: Non-GE; Transferable: CSU]

VT 87C ADVANCED ANIMAL CARE SKILLS III 1 Unit
Prerequisite: Admission to the Veterinary Technology Program.
Not Repeatable.
3 hours laboratory.

Continuation of VT 87B. Continuing instruction of first-year students in basic principles of facilities management and maintenance care of resident animals. Supervisory responsibilities include the formulation of work schedules, performing diagnostic and therapeutic procedures on resident animals, performance evaluations of first-year students, and staffing open lab sessions. Facilitate transition of primary animal care responsibility to first-year students. [FHGE: Non-GE; Transferable: CSU]

VT 88A CLINICAL PRECEPTORSHIP I 1.5 Units
Corequisite: VT 52A.
Not Repeatable.
7.5 hours clinic.

Formal, structured off-campus clinical experience in licensed veterinary facilities, which serve as a means of instructing the student in practical, hands-on, clinical skills in all aspects of veterinary assisting. The student is under the direct supervision of one or more licensed veterinarians and/or credentialed veterinary technicians. The site of the preceptorship is approved by the veterinary technology program in consultation with the student and the veterinary professionals Opportunity for learning and practical application of the knowledge, skills and attitudes required of a veterinary assistant. Exposure to varied methodologies and practice philosophies in a variety of clinical settings. Emphasis is on the role of the veterinary assistant in the veterinary health care team. [FHGE: Non-GE; Transferable: CSU]

VT 88B CLINICAL PRECEPTORSHIP II 1.5 Units
Corequisite: VT 52B
Not Repeatable.
7.5 hours clinic.

This course covers a wide scope and increased depth of skills training. Formal, structured off-campus clinical experience in licensed veterinary facilities, which serve as a means of instructing the student in practical, hands-on, clinical skills in all aspects of veterinary assisting. The student is under the direct supervision of one or more licensed veterinarians and/or credentialed veterinary technicians. The site of the preceptorship is approved by the veterinary technology program in consultation with the student and the veterinary professionals Opportunity for learning and practical application of the knowledge, skills and attitudes required of a veterinary assistant. Exposure to varied methodologies and practice philosophies in a variety of clinical settings. Emphasis is on the role of the veterinary assistant in the veterinary health care team. [FHGE: Non-GE; Transferable: CSU]

VT 89 CLINICAL INTERNSHIP I 3 Units
Prerequisite: Admission to the Veterinary Technology Program.
Not Repeatable.
15 hours laboratory.

Off-campus practical clinical work experience for Veterinary Technology Program students in veterinary facilities supervised by licensed veterinarians and veterinary technicians. Integration into a veterinary health care team and exposure to varied methodologies and practice philosophies in a variety of clinical settings. Practical application of knowledge, skills, and attitudes acquired in the first year program course work: clinical application of anatomy and physiology; medical terminology and medical math; chemistry and microbiology; interpersonal skills and office practices. Supervised hands-on training in basic medical and surgical nursing. Opportunity to practice and attain entry level competency in essential clinical skills. This course is intended for students admitted into the Veterinary Technology Program. [FHGE: Non-GE; Transferable: CSU]

VT 91 CLINICAL INTERNSHIP II 3 Units
Prerequisite: Admission to the Veterinary Technology Program.
Not Repeatable.
15 hours laboratory.

Off-campus practical clinical work experience for Veterinary Technology Program students in veterinary facilities supervised by licensed veterinarians and veterinary technicians. Students begin to follow directions from doctors and staff with increasing independence and exhibit good judgment and critical thinking skills. Practical application of knowledge, skills, and attitudes acquired in the concurrent second year program course work: patient assessment skills, animal restraint, administration of medication and sample collection; assisting in radiology, clinical pathology, anesthesiology and common clinical procedures. [FHGE: Non-GE; Transferable: CSU]

VT 92 CLINICAL INTERNSHIP III 3 Units
Prerequisite: Admission to the Veterinary Technology Program.
Not Repeatable.
15 hours laboratory.

Off-campus practical clinical work experience for Veterinary Technology Program students in veterinary facilities supervised by licensed veterinarians and veterinary technicians. Students must assume more responsibility; and act independently with more confidence and proficiency; applying principles of critical thinking to clinical practice and troubleshooting with confidence and good judgment. Practical application of knowledge, skills, and attitudes acquired in the concurrent second year program course work: Assumes primary responsibility for radiology, clinical pathology, anesthesiology, medical and surgical nursing and common clinical procedures. This course is intended for students admitted into the Veterinary Technology Program. [FHGE: Non-GE; Transferable: CSU]

VT 93 CLINICAL INTERNSHIP IV 4 Units
Prerequisite: Admission to the Veterinary Technology Program.
Not Repeatable.
20 hours laboratory.

Off-campus practical clinical work experience for Veterinary Technology Program students in veterinary facilities supervised by licensed veterinarians and veterinary technicians. Student assumes primary responsibility for training, mentoring, and supervising new unregistered veterinary assistants and veterinary technicians. High-level practical application of knowledge, skills, and attitudes acquired in the concurrent second year program course work. In addition to competently performing all essential clinical skills and duties delegated to the veterinary technician; the student will begin to take responsibility for client education, development of patient care plans, providing nursing care to critical care and emergency patients, performing advanced sampling techniques, conducting special diagnostic studies, and performing more complex therapeutics. [FHGE: Non-GE; Transferable: CSU]

VT 95 VETERINARY TECHNICIAN PROFICIENCY 2 Units
Prerequisite: Admission to the Veterinary Technology Program.
Not Repeatable.
2 hours lecture, 1 hour group study.
 Review of pertinent subject matter in preparation for the California State Veterinary Technician Examination and the Veterinary Technician national Examination. Guided review and discussion of exam application process. [FHGE: Non-GE; Transferable: CSU]

VT 95L VETERINARY TECHNICIAN PROFICIENCY LABORATORY 1 Unit
Prerequisite: Admission to the Veterinary Technology Program.
Not Repeatable.
3 hours laboratory.
 Provides opportunity for practicing essential clinical skills and demonstrating the technical proficiency required of the graduate veterinary technician. Emphasis is on skill development and hands-on experience in all required areas. Practical training in the American Veterinary Medical Association Committee on Veterinary Technician Education and Activities List of Essential Skills Expected of Graduate Veterinary Technicians using a set of Standard criteria as a guideline for the accomplishment of performance objectives. [FHGE: Non-GE; Transferable: CSU]

VT 290 DIRECTED STUDY 1 Unit
VT 290X 1.5 Units
VT 290Y 2 Units
VT 290Z 2 Units
Formerly: VT 190
Advisory: Pass/No Pass.
May be taken 6 times for credit.
.5 hour lecture, 1.5 hour laboratory for each .5 unit of credit.
 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. Enrollment is limited to 6 times within the VT 290 group. [FHGE: Non-GE; Transferable: Not transferable]

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.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: UC/CSU]

VART 2A HISTORY OF FILM 1895-1945 4 Units
Advisory: Not open to students with credit in F TV 2A.
Not Repeatable.
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. [FHGE: Humanities; Transferable: UC/CSU]

VART 2B HISTORY OF FILM 1945-CURRENT 4 Units
Advisory: Not open to students with credit in F TV 2B.
Not Repeatable.
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. [FHGE: Humanities; Transferable: UC/CSU]

VART 2C CURRENT TRENDS IN FILM, TV & THE INTERNET 4 Units
Advisory: Not open to students with credit in F TV 2C.
Not Repeatable.
4 hour lecture, 1 hour laboratory.
 Current trends of film, video, television, and internet media. Critical analysis of time based linear and non-linear visual media. Emphasis on the visual experience of communicating ideas, stories, and events. Includes weekly readings, media screenings, and discussion. [FHGE: Humanities; Transferable: UC/CSU]

VART 3 AMERICAN CINEMA 4 Units
Advisory: Not open to students with credit in F TV 3.
Not Repeatable.
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. American cinematic history, terminology, economic structure and cultural importance. Skills and insight into watching films critically. Development of analysis and writing skills. [FHGE: Non-GE; Transferable: UC/CSU]

VART 4 SCRIPTWRITING FOR FILM & VIDEO 4 Units
Not Repeatable.
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. [FHGE: Non-GE; Transferable: CSU]

VART 15 WEB VIDEO 4 Units
May be taken 3 times for credit.
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. [FHGE: Non-GE; Transferable: CSU]

VART 20 DIGITAL VIDEO PRODUCTION I 4 Units
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. [FHGE: Non-GE; Transferable: UC/CSU]

VART 21 DIGITAL VIDEO PRODUCTION II 4 Units
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 advanced topics in videography, lighting, and sound. Emphasis on pre-production and scripting methods. [FHGE: Non-GE; Transferable: UC/CSU]

VART 30 DIGITAL VIDEO EDITING I 4 Units
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 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 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. [FHGE: Non-GE; Transferable: UC/CSU]

VART 31 DIGITAL VIDEO EDITING II 4 Units
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 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.
 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. [FHGE: Non-GE; Transferable: UC/CSU]

VART 50 CAREERS IN THE VISUAL ARTS 2 Units
Advisory: Not open to students with credit in GID 60.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: CSU]

VART 80 SPECIAL PROJECTS IN VIDEO 1 Unit
VART 80X 2 Units
VART 80Y 4 Units
Advisory: Not open to students with credit in F TV 80.
May be taken 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. Enrollment is limited to 6 times within the VART 80 group. [FHGE: Non-GE; Transferable: CSU]

VART 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. [FHGE: Non-GE; Transferable: 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.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: 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.
May be taken 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. Enrollment is limited to 6 times within the VART 150 group. [FHGE: Non-GE; Transferable: Not transferable]

VITICULTURE

Biological & Health Sciences (650) 949-7249

VITI 51 APPLIED PLANT SCIENCE 4 Units
Not Repeatable.
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 varieties and rootstocks best adapted to an area. European varieties are emphasized and American varieties are covered. Introduction to the major wine grape diseases and pests common to this region. [FHGE: Non-GE; Transferable: CSU]

VITI 52 FALL PRACTICES 4 Units
Not Repeatable.
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. [FHGE: Non-GE; Transferable: CSU]

VITI 53 WINTER PRACTICES 4 Units
Advisory: VITI 51 and 52 strongly advised.
Not Repeatable.
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 varieties selection, planting, training, budding/grafting, pruning of young plants, and trellising options. [FHGE: Non-GE; Transferable: CSU]

VITI 55 SPRING PRACTICES 4 Units
Not Repeatable.
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. [FHGE: Non-GE; Transferable: CSU]

VITI 61A INTRODUCTION TO WINEMAKING 4 Units
Advisory: Must be 21 years of age to participate in wine tasting.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: UC/CSU]

VITI 61B INTERMEDIATE WINEMAKING 4 Units
Prerequisites: VITI 61A.
Advisory: CHEM 31A, 31B or equivalent; must be 21 years of age to participate in wine tasting.
Not Repeatable.
3 hours lecture, 3 hour laboratory.

Winter wine production procedures. Extension of 61A 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. [FHGE: Non-GE; Transferable: CSU]

VITI 61C ADVANCED WINEMAKING 4 Units
Prerequisites: VITI 61B.
Advisory: BIOL 41 or equivalent; must be 21 years of age to participate in wine tasting.
Not Repeatable.
3 hours lecture, 3 hour laboratory.

Spring wine production procedures. Extension of 61B 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. [FHGE: Non-GE; Transferable: UC/CSU]

VITI 63 CONTEMPORARY ISSUES IN WINEMAKING 4 Units
Prerequisite: VITI 61C or equivalent field experience.
Advisory: Must be 21 years of age to participate in wine tasting.
Not Repeatable.
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. [FHGE: Non-GE; Transferable: CSU]

VITI 65 WINE & CULTURE 4 Units
Not Repeatable.
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. [FHGE: Non-GE; Transferable: UC/CSU]

VITI 67 RETAIL WINERY MANAGEMENT 4 Units
Not Repeatable.
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. [FHGE: Non-GE; Transferable: CSU]

VITI 90A WINE APPRECIATION 1 Unit
Advisory: Must be at least 21 years old 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. [FHGE: Non-GE; Transferable: 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. [FHGE: Non-GE; Transferable: 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. [FHGE: Non-GE; Transferable: 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. [FHGE: Non-GE; Transferable: CSU]

VITI 90E BASIC WINEMAKING 2 Units
Advisory: Must be at least 21 years old to participate in tasting for which 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 on the vine to finished wine in the glass. [FHGE: Non-GE; Transferable: CSU]

WOMEN'S STUDIES

Business & Social Sciences

(650) 949-7322
www.foothill.edu/bss/

WMN 5 INTRODUCTION TO WOMEN'S STUDIES 4 Units

Advisory: Eligibility for ENGL 1A or ESLL 26.
Not Repeatable.
4 hours lecture.

Examination and development of the goals, major documents, history, achievements, and evolution of the current women's movement in light of the impact and contributions of women, in comparison to those of men, of various cultural and ethnic heritage. Includes appraisal of the effects of multiculturalism and the women's movement on politics, jobs, education, science, family structure, and the arts. [FHGE: United States Cultures & Communities, Social & Behavioral Sciences; Transferable: UC/CSU]

WMN 11 WOMEN IN GLOBAL PERSPECTIVE 4 Units

Not Repeatable.
4 hours lecture.

Examination and analysis of the historical roles of women globally and the impact and influence of these historical developments on modern society internationally and domestically. [FHGE: United States Cultures & Communities, Social & Behavioral Sciences; Transferable: UC/CSU]

WMN 15 A HISTORY OF WOMEN IN ART 4.5 Units

Advisory: Not open to students with credit in ART 2E.
Not Repeatable.
4 hours lecture, 1.5 hours laboratory.

A cross-cultural examination of art works and gender issues concerning women artists from the early Middle Ages to the 21st century. [FHGE: Humanities; Transferable: UC/CSU]

WMN 21 PSYCHOLOGY OF WOMEN: SEX & GENDER DIFFERENCES 4 Units

Advisory: Not open to students with credit in PSYC 21 or SOC 21; eligibility for ENGL 1A or ESLL 26.
Not Repeatable.
4 hours lecture.

Survey of gender issues based upon psychological and sociological theories and research. Examination of sex differences and sex role stereotyping in a global, multi-cultural approach. Appraisal of effects of biology, culture, and society in creating sex and gender differences. Consideration of major theories of gender development. Focus on biology, socialization, mass media, communication, personality, abilities, work, family, sex, and violence. [FHGE: Social & Behavioral Sciences; Transferable: UC/CSU]

WMN 34H HONORS INSTITUTE SEMINAR IN WOMEN'S STUDIES 1 Unit

Formerly: WMN 34

Prerequisite: Honors Institute participant.
Advisory: Not open to students with credit in WMN 34.
Not Repeatable.
1 hour lecture.

A seminar in directed reading and discussion in women's studies. Specific topics to be determined by instructor. [FHGE: Non-GE; Transferable: CSU]

WMN 35 DEPARTMENT HONORS PROJECTS IN WOMEN'S STUDIES 1 Unit

May be taken 6 times for credit.
1 hour lecture.

Seminar in directed reading and discussion in women's studies. Specific topics are determined in consultation with instructor. [FHGE: Non-GE; Transferable: CSU]

WMN 36 SPECIAL PROJECTS IN WOMEN'S STUDIES 1 Unit

WMN 36X 2 Units
WMN 36Y 3 Units
WMN 36Z 4 Units

May be taken 6 times for credit.
1 hour lecture for each unit of credit.

Advanced readings, research and/or project in women's studies. Specific topics determined in consultation with instructor. Enrollment is limited to 6 times within the WMN 36 group. [FHGE: Non-GE; Transferable: CSU]



“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.”

—*Anne Cribbs, President & CEO, Cribbs & Company;
Chairwoman, Bay Area Sports Organizing Committee;
Gold Medalist, 1960 Olympic Games*

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Shawna Aced, A.A.

- Hyland, Patricia (2007)**
Dean, Students Affairs & Activities
B.S., M.A., San Jose State University
- Jardali, Najwa (1991)**
English for Second Language Learners
B.A., University of California, Santa Barbara;
M.A., San Francisco State University
- Jinnah, Fatima (2007)**
Counseling
B.A., University of California, Berkeley;
M.S., San Francisco State University
- Johnson, Brenda (1991)**
Counseling
B.A., California State University, Sacramento;
M.A., San Jose State University
- Jones, Kay (2006)**
Librarian
B.A., University of California, Davis;
M.S., San Jose State University
- Jordahl, Kate (1997)**
Photography
B.A., University of Delaware;
M.F.A., Ohio University
- Josselyn, Carol (1987)**
Communication Studies, English
B.A., Occidental College;
M.A., Southern Illinois University;
Ph.D., University of Washington
- Key, S. Jenene (1994)**
Radiologic Technology
B.S., M.S., University of Alabama
- Khejjou, Ali (1993)**
English for Second Language Learners
B.A., English University Mohammed V;
M.A., San Francisco State University
- Kitajima, Lorraine N. (1985)**
Director, Health Services
B.S., San Jose State University;
M.S., University of California, San Francisco
- Knobel, Marc (2000)**
Mathematics
A.A., De Anza College;
B.A., M.S., San Jose State University
- Knopf, Karl (1977)**
Adapted Physical Education
B.A., San Diego State University; M.A., San
Jose State University; Ed.D., Nova University
- Kornegay, Catherine (1977)**
Dental Hygiene
A.S., Foothill College;
B.A., San Francisco State University;
M.A., San Jose State University
- Kuhn Jr., Frederick (2002)**
Director, Economic & Resource Development
B.A., Sonoma State University
- Lam, Phuong My (2000)**
Mathematics
B.S., Santa Clara University;
M.S., California State University, Hayward
- Lane, Kimberly (2002)**
Counseling
B.A., Kent State University;
M.S.S.A., Case Western Reserve University
- Lane, Linda (1985)**
English, Reading
B.A., M.S., California State University,
Hayward
- Lang, Gary (1988)**
Physical Education
B.S., California State University, Sacramento;
M.S., University of Arizona
- Lankford, Scott (1989)**
English
B.A., Williams College;
M.A., Ph.D., Stanford University
- Larson, Londa (1995)**
Chemistry
B.S., California State University, Hayward;
Ph.D., University of California, Los Angeles
- Lee, Andrew (2005)**
Counseling
B.A., University of California, Berkeley;
M.A., San Jose State University
- Lee, Davida C. Vance (1975)**
Counseling
B.S., M.A., O.T.C., San Jose State University
- Lee, Debbie (2007)**
Mathematics
B.A., M.A., San Francisco State University
- Lee, Keith (1996)**
Photography
B.A., University of California, Los Angeles;
M.F.A., School of the Art Institute of Chicago
- Lenkeit Meezan, Karen Allison (2000)**
Geographic Information Systems, Geography
B.S., Stanford University;
M.Phil., University of Cambridge
- Levine, Ronald (2003)**
Police Chief
District Police
- Lew, Debra (2001)**
Counseling
B.A., University of California, Los Angeles;
M.S., California State University, Los Angeles
- Lewis, Brian (2001)**
English
B.A., University of California, Santa Barbara;
M.A., San Francisco State University
- Lin, Eta (2007)**
Psychology
B.A., M.A., Ph.D., University of California,
Santa Barbara
- Liner, Thomas (2000)**
Physical Education, Women's Soccer Coach
B.A., California State University, Chico
- Loceff, Michael (1984)**
Computer Information Systems
B.S., University of Michigan;
M.S., Stanford University
- Lopez, Joanne (1996)**
Biology
B.A., Ph.D., University of California,
Santa Cruz
- Lum, Linda (1977)**
Art
B.A., Marycrest College;
M.A., University of Iowa
- MacDougall, Maureen (1999)**
Veterinary Technology
B.S., Manhattan College; M.S., Pennsylvania
State University; D.V.M., Purdue University
- Macias, Dixie (1990)**
Physical Education, Men's Tennis Coach
B.S., San Jose State University;
M.A., Stanford University
- Mac Neil, Donald (2008)**
Adaptive Physical Education
B.A., M.A., San Francisco State University
- Manske, Kent (1990)**
Art, Graphic & Interactive Design
B.F.A., University of Wisconsin, Eau Claire;
M.F.A., School of the Art Institute of Chicago
- Marasco, David (2004)**
Physics
B.A., B.S., University of California, San Diego;
M.S., Ph.D., Northwestern University
- Martinez, Ricardo A. (1994)**
Mathematics
B.S., California State University, Chico;
M.S., California State University, Hayward
- Masegian, Kelly (2007)**
Coordinator, Foothill-De Anza Internship Program
B.A., Trinity University; M.A., Our Lady of
the Lake University, San Antonio
- Maurer, Kathryn (2011)**
Anthropology
B.A., American College of Greece, Athens;
M.A., Ph.D., University of California,
Los Angeles
- McGriff, Steven (2008)**
*Teacher-in-Residence, Krause Center for
Innovation*
B.A., Stanford University;
M.A., San Jose State University;
Ph.D., Pennsylvania State University
- McLeod, Bruce (2006)**
Theatre Arts
B.A., Western Washington University
- Meade, LaDawn (2001)**
Computer Information Systems
B.A., University of Utah; M.S., California
State University, Sacramento
- Melia, Martin (2001)**
Biology
B.A., University of California, Berkeley;
M.A., San Francisco State University
- Menager-Beeley, Rosemarie (1991)**
Psychology
B.A., University of California, Berkeley;
M.S., California State University, Los Angeles;
Ed.D., University of Southern California
- Menendez, Natalia A. (1991)**
English, Composition, Literature
B.A., M.A., University of California, Berkeley
- Messina, Kimberlee (2011)**
*Vice President, Instruction & Institutional
Research*
B.A., M.A., California State University,
Sacramento; Ed.D., University of
California, Davis
- Miller, Ellen (2006)**
*Program Developer, Professional &
Work Force Development*
B.A., University of Maryland;
M.A., College of Notre Dame
- Miller, Lawrence S. (1979)**
Respiratory Therapy
A.A., Santa Monica College;
B.A., M.A., California State University,
Long Beach; R.R.T., University of California,
Los Angeles Medical Center
- Miner, Judy C. (1988)**
President
B.A., M.A., Lone Mountain College;
Ed.D., University of San Francisco
- Miyasaki, Cara (1991)**
Director, Dental Assisting Program
A.S., Foothill College; B.S., M.S., University
of California, San Francisco
- Morasci, Richard (1996)**
English for Second Language Learners
B.A., University of California, Berkeley;
M.A., San Francisco State University
- Morriss, Patrick (2001)**
Mathematics
B.A., North Dakota State University;
M.S., San Jose State University
- Mudge, Rachel (2004)**
Mathematics
B.A., Scripps College;
M.S., Santa Clara University
- Mummert, John (2001)**
*Interim Vice President,
Work Force Development & Instruction*
B.A., Pennsylvania State University;
M.A., University of New Mexico
- Murphy, William (2002)**
Computer Networking
B.S., M.S., University of California, Berkeley;
J.D., Santa Clara University
- Murray, Peter (2005)**
*Division Dean,
Physical Sciences, Mathematics & Engineering*
B.S., M.S., Clarkson University
- Myers, Roseann (1996)**
*Vice President,
Student Development & Instruction*
B.A., Hampton University; M.A., Rowan
University, Glassboro
- Nava, José (1998)**
Accounting, Business
B.A., University of California, Los Angeles;
M.A., University of California, Berkeley
- Nava, Tobias (2005)**
Counseling
B.A., M.A., San Jose State University
- Ni, Preston (1991)**
Communication Studies
B.S., M.S.B.A., San Francisco State University
- Norick, Amanda (2005)**
Chemistry
B.S., Western Oregon University;
M.S., Vanderbilt University
- Oburn, Ronald K. (1975)**
Physical Education
B.S., M.A., California State
Polytechnic University
- Ong, Teresa (2007)**
Learning Disability Specialist
B.A., National University of
Singapore; M.A., New York University;
M.A., University of San Francisco
- Onugba, Erica (2008)**
English
B.A., University of California, Berkeley;
M.A., University of California, Los Angeles
- O'Loughlin, Rita A. (1989)**
Adapted Physical Education
A.A., Orange Coast College;
B.A., California State University, Chico;
M.S., California State University, Hayward
- Parikh, Sarah (2011)**
Engineering/Physics
B.S., University of Texas, Austin;
M.S., Ph.D., Stanford University
- Park Lee, Young Hee (2008)**
Mathematics
B.S., Kyungnam University, Korea;
M.S., Ph.D., Korea Advanced Institute of
Science & Technology
- Patyk, Jay (2000)**
Economics
B.A., M.A., San Jose State University
- Paye, Anne M. (1989)**
English
B.A., San Jose State University;
M.A., Stanford University
- Pelzel, Robert E. (1980)**
Broadcasting, Radio
B.A., University of California, Berkeley
- Pennington, Simon (2006)**
Art History
B.A., San Jose State University; M.A.,
University of East Anglia, Norwich, England
- Perino, Kathryn (1994)**
Mathematics
B.S., California Polytechnic State
University, San Luis Obispo;
M.S., Eastern Washington University
- Peter, Karl M. (1992)**
Director, Veterinary Technology Program
B.A., Fresno Pacific University;
D.V.M., University of California, Davis
- Piparo, Elaine (2001)**
Counseling
B.A., University of California, Berkeley;
M.S., San Francisco State University
- Pouncil, Matis D. (2007)**
*Director, Extended Opportunity
Program & Services*
B.S., Southern University, Baton Rouge;
M.A., California State University, Long Beach;
Ed.D., University of California, Irvine
- Pratt, Keith (1998)**
English for Second Language Learners
B.A., California State University, Hayward;
M.A., San Jose State University;
M.A., San Francisco State University
- Radow, Ikuko (2001)**
Japanese
B.A., M.A., Tokyo University of Foreign
Studies; Ph.D., University of California,
Santa Barbara
- Ragey, Joseph (1988)**
Art, Graphic & Interactive Design, Theatre Arts,
B.F.A., Memphis State University;
M.F.A., San Francisco State University;
M.A., San Jose State University
- Rao, Sandhya (2011)**
Chemistry
B.S., University of California, Los Angeles;
AM, Harvard University;
M.A., University of San Francisco
- Reid, Roberta Anne (1990)**
Art History
B.A., California State University, Humboldt;
M.A., University of California, Santa Barbara;
Ph.D., Stanford University
- Ripp, Kathryn (2004)**
Physical Education, Women's Volleyball Coach
B.A., University of Pacific;
M.A., Saint Mary's College
- Rivera-Montanez, Julio (2001)**
Spanish
B.A., University of Puerto Rico;
M.A., Brown University

- Robbins, Doren (2001)**
English, Creative Writing
B.A., The Union Institute, Cincinnati;
M.F.A., University of Iowa
- Rosenberg, Shanah (2002)**
Physical Education, Men's Basketball Coach
B.A., University of California, Davis;
M.A., California State University, Chico
- Ruble, Andrew (2008)**
Art, Ceramics
B.F.A., Kansas City Art Institute;
M.F.A., Louisiana State University
- Rush, Tiffany (2010)**
Respiratory Therapy
B.S., M.S., Florida Agricultural &
Mechanical University
- Sauter, David (2000)**
Environmental Horticulture & Design
B.S.L.A., Iowa State University;
M.A., University of Iowa
- Sawka, John (1988)**
Mathematics
B.S., Harvey Mudd College;
M.S., M.Phil., Ph.D., Yale University
- Scattini, Gene (1985)**
Physical Education, Men's Golf Coach
B.A., San Jose State University;
M.A., University of Nevada, Reno
- Schmidt, Ernest (2005)**
Psychological Services
B.A., University of the Pacific;
M.S.W., University of California, Berkeley
- Schultheis, Lisa (2002)**
Biology
B.S., University of Arizona;
Ph.D., University of California, Berkeley
- Schultz, Gillian (2007)**
Biology
B.A., University of Rochester;
M.S., Ph.D., University of California, Riverside
- Serna, Leticia (2001)**
Counseling
B.S., San Jose State University;
M.S., California State University, Hayward
- Seyedin, Sara (1998)**
Accounting
B.A., National University of Iran;
M.P.A., University of Colorado;
M.B.A., San Jose State University;
Ph.D., University of Northern Colorado
- Shewfelt, Barbara (1989)**
Physical Education
M.F.A., New York University;
M.S., Stanford University
- Silverman, Loretta (2000)**
Mathematics
B.A., University of California, San Diego;
M.S., San Jose State University
- Sinclair, Jennifer (2010)**
Mathematics
B.A., M.A., San Francisco State University
- Small, Daphne (2001)**
Director, Student Activities
B.A., University of California, Santa Barbara;
M.A., San Jose State University
- Sprague, Phyllis (1998)**
Division Dean, Biological & Health Sciences
A.S., College of the Redwoods; A.S., Foothill
College; A.S., Cañada College; B.A., St. Mary's
College; M.A., San Jose State University
- Stanley, Brian H. (1980)**
Mathematics, Engineering
B.Sc., University of Birmingham, England;
M.S., University of Kansas;
M.S., Santa Clara University
- Starer, Paul (1999)**
Division Dean, Language Arts
B.A., University of California, Santa Cruz;
M.A., San Francisco State University
- Stefonik, Benjamin (2010)**
Psychology
B.A., University of Wisconsin, Eau Claire;
M.A., San Francisco State University
- Stevenson, Janis (1975)**
Music
B.A., M.A., San Jose State University
- Su, Angela (2010)**
Pharmacy Technology
B.S., Purdue University
- Svenson, Daniel K. (1995)**
Director, Environmental Horticulture & Design Program
B.S., Oregon State University; M.L.A.,
California Polytechnic University, Pomona;
M.B.A., Sonoma State University
- Svetich, Kella (2005)**
English
B.A., M.A., University of Nevada, Reno;
Ph.D., University of California, Davis
- Swett, Denise (2007)**
*Acting Vice President, Student Development
& Instruction; Associate Vice President,
Middlefield Campus & Community Programs*
B.A., M.P.A., San Jose State University;
Ed.D., University of San Francisco
- Taketa, Victoria (1988)**
Counseling
B.A., M.A., San Jose State University
- Tam, Victor (2007)**
Chemistry
B.S., University of California, Berkeley;
M.S., Ph.D., University of California, San Diego
- Tambling, Bruce (2007)**
Music Technology
B.A., Charter Oak State College
- Tapia, Brian (2006)**
Philosophy
B.A., M.A., San Diego State University
- Thomas, Jeanne (2007)**
Child Development
B.A., San Jose State University;
M.A., Pacific Oaks College
- Thomas, Mary (2001)**
Librarian
B.A., University of California, Davis;
M.L.S., University of California, Los Angeles
- Townes, Shawn (2000)**
Communication Studies
B.A., M.A., San Francisco State University;
Ph.D., Ohio University
- Treanor, Shirley (1988)**
Vice President, Educational Resources & Instruction
A.A., Prince George's College; B.S., Maryland
University, College Park; Advanced Respiratory
Therapy Certificate, University of Chicago;
M.S., San Francisco State University;
Ed.D., University of San Francisco
- Tripp Caldwell, Kristin (2001)**
Video Arts
B.F.A., University of North Texas;
M.F.A., School of Visual Arts, New York
- Urrutia-Lopez, Rebecca (2000)**
Coordinator, Cooperative Work Experience Education
B.S., San Jose State University;
M.A., University of San Francisco
- Uyeda, Diane (2004)**
English for Second Language Learners
B.A., Occidental College, Los Angeles;
M.A., University of Washington
- Velasco, Lauren Popell (2000)**
Communication Studies, Forensics
B.A., Bates College;
M.A., Stanford University
- Villanueva, Voltaire (2007)**
Counseling
B.A., M.A., San Francisco State University;
M.A., University of San Francisco
- Violett, Glenn (2006)**
Acting Division Dean, Business & Social Sciences
B.S., M.B.A., Golden Gate University
- Visas, Brenda (2008)**
Director, Facilities & Special Projects
B.S., San Jose State University
- Voyce, Warren (2007)**
Athletic Trainer, Physical Education & Athletics
B.S., M.S., California State University, East Bay
- Wang, Xiujuan (1991)**
Physics, Engineering
B.S., Zhejiang University, Peoples Republic of
China; M.S., University of Toledo
- Watkins, Sandra (1998)**
Computer Science
B.A., Western Illinois University;
M.S., Iona College
- Wheeler, Bonny (2000)**
Director, Radiologic Technology Program
B.A., M.A., San Jose State University
- Whitehill, Anita (1999)**
Computer Information Systems
B.A., University of California, San Diego;
M.B.A., San Francisco State University
- Wilkes, Pamela (2005)**
Librarian
B.A., University of California, Santa Cruz;
M.L.I.S. University of California, Berkeley
- Will, Marguerite (Mimi) (1976)**
Computer Information Systems
B.A., M.A., San Francisco State University;
M.A., San Jose State University
- Wolterbeek, Kim S. (1989)**
English, Creative Writing Conference
B.S., M.A., University of the Pacific, Stockton
- Wong, Russell (2006)**
Learning Disability Specialist
B.A., University of San Francisco State
University; M.A., Santa Clara University
- Woolcock, Joseph (1987)**
Political Science
B.A., Boston College;
M.A., Ph.D., Stanford University
- Wu, Tilly Liu (2000)**
Counseling
B.S., M.A., San Jose State University
- Yamamoto, Judy (2008)**
Dental Radiology
B.A., M.S., San Francisco State University;
B.S., University of California, San Francisco
- Ziegenhorn, William (2004)**
History
B.A., University of California, Davis;
M.A., San Jose State University
- Zwack, Teresa (2010)**
Mathematics
B.A., University of California, Santa Cruz;
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Emeritus Faculty

- Adams, Katherine (1988)**
Counseling
A.A., Foothill College; B.S.,
College of Notre Dame; M.A., Santa Clara
University; Ed.D., University of San
Francisco
- Adams, Lily (1987)**
Counseling
B.A., University of the East; M.Ed., Ph.D.,
Loyola University
- Adler, Richard R. (1962)**
Biology
B.S., Michigan State University; M.Ed.,
Wayne State University; M.S., University of
Michigan
- Alfsen, Karen (1985)**
English for Second Language Learners
B.A., M.A., California State, Hayward; M.A.,
San Francisco State University
- Anderson, Dorothy A. (1961)**
Business
B.S., University of Nebraska; M.A., Stanford
University
- Atchison, James A. (1964)**
Psychology
B.A., Saint Mary's College; M.A., New Mexico
Highlands University; C.G. Institute, Zurich,
Switzerland
- Barnett, Elyse (1992)**
Anthropology
B.A., Brandeis; Ph.D., Stanford University
- Becchine, Virginia E. (1976)**
Director, Respiratory Therapy
A.S., Foothill College; B.A., Montclair State
University; M.A., Santa Clara University
- Bell, Mary D. (1992)**
French
B.A., University of California, Los Angeles;
M.A., Tulane University
- Berthiaume, R. Dennis (Denny) (1970)**
English
B.A., M.A., San Diego State University
- Bonneau, B. Leon (1968)**
Astronomy
B.A., San Jose State University; M.A.,
California State University, Northridge;
M.Ed., San Francisco State University
- Bray, D. Jene (1964)**
Counseling
B.A., M.A., Arizona State University
- Broadwin, John (1990)**
Librarian
B.A., Stanford University; M.L.S., University of
California, Los Angeles
- Broussard, Charles C. (1967)**
Counseling
B.A., Louisiana State University; M.A., San
Francisco State University
- Bruguera, Jorge (1972)**
Reference Librarian
B.A., University of Pittsburgh; M.L.S.
Carnegie Institute of Technology
- Bryan, William J. (1965)**
Music
B.S., St. Louis Institute of Music; M.S.Ed.,
University of Southern California
- Carr, Janice (1989)**
Mathematics
A.B., Colby College; A.M.T., Harvard
University
- Carter, Celeste V. (1996)**
Biology
B.S., University of California, Berkeley; M.S.,
Harvard; Ph.D., Pennsylvania State School
of Medicine
- Chavez, Robert A. (1970)**
Counseling, Middlefield Campus
B.A., M.A., University of New Mexico
- Chivington, Thomas H. (1966)**
Physical Education, Tennis
A.A., Ventura College; B.S., Wyoming
University; M.A., Washington State
University

- Chung, Lilia** (1974)
English as a Second Language
A.A., Holy Ghost College; B.Ph., M.A.,
University of Santo Tomas; Ph.D., Syracuse
University
- Clark, Nancy Howe** (1977)
Director, Children's Programs
B.A., M.A., Stanford University
- Cole, Jerry R.** (1967)
Men's Basketball, Physical Education
B.A., M.A., University of Denver; Ed.D.,
Colorado State College
- Connor, Ann Wilkinson** (1965)
*Associate Dean, Instruction; Off-Campus
Programs, Interchange*
B.A., M.A., San Francisco State University
- Conom, Tom** (1982)
Manager, College Police & Safety Services
- Cotter, Stanley** (1964)
Mathematics
B.A., University of California, Berkeley;
M.A., University of Illinois
- Critchfield, Frederick** (1960)
*Director, Economic Development, Grants,
Apprenticeship Programs*
B.S., Utah State University; M.A., Stanford
University
- Cross, Truman B.** (1970)
History
B.A., Portland State College; M.A., George
Washington University; Ph.D., Indiana
University
- De Luna, Yaya** (1971)
History, Sociology
B.A., M.A., San Jose State University; Ph.D.,
University of Southern California
- De Palma, Barton** (1962)
Art, Film
B.F.A., M.F.A., University of Pennsylvania
- Dillon, William M.** (1992)
Director, Aviation Program
B.S., Cheney State University; M.S.,
California State University, Hayward; A.T.P.
C.S.I.I.
- Di Nucci, Linda** (1991)
Reach Program
A.A., West Valley College; B.A., M.A., M.S.,
San Jose State University; R.N., Western
Pennsylvania Hospital School of Nursing
- Dominguez, Arno** (1990)
Physical Education
B.A., San Jose State University; M.A., St.
Mary's College
- Dong, Raymond P.** (1976)
Electronics
B.S., Tri-State University; M.A., Michigan
State University
- Dorsey, Donald** (1973)
Dean, Student Affairs & Activities
B.A., Prairie View A & M College; M.A., San
Jose State University
- Dowling, W. Lescher** (1967)
Photography
B.A., University of California, Santa Barbara;
M.A., San Diego State University
- Ettinger, Stanley L.** (1966)
Graphic Design
B.F.A., Pratt Institute; M.A., New York
University
- Fairchild, James R.** (1966)
Football, Physical Education
B.A., M.A., College of the Pacific
- Feeter, J. William** (1975)
Animal Health Technology
B.S., D.V.M., Kansas State University
- Felix, Raul** (1973)
*Work Experience Coordinator, Cooperative
Education*
B.A., M.A., San Jose State University
- Fetler, James M.** (1964)
English
B.A., San Francisco State University; M.A.,
University of California, Berkeley
- Fish, Ruth Anne** (1959)
Mathematics
B.S., M.S., University of Arizona
- Fisher, Carl J.** (1964)
Accounting, Business
B.A., M.B.A., Stanford University
- Flowers, April** (1988)
English, English for Second Language Learners
B.A., Auburn University; M.A., San Francisco
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- Fong, Bernadine Chuck** (1970)
President Emerita
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- Ford, John Rene** (1967)
Drama, Speech
A.A., Santa Ana College; B.A., U.C. Santa
Barbara; M.A., San Jose State University
- Gallo, Joseph D.** (1963)
English
A.A., Fullerton Junior College; B.A.,
M.A., San Jose State University; D.Arts.,
University of Pacific
- Gatlin, Susan** (1996)
Division Dean, Physical Education
B.A., Humboldt State University; M.S., South
Oregon State College
- Gause, Mary Jane Powell** (1977)
Computer Applications
B.A., University of Washington; M.A.,
University of California, Berkeley
- Gause, Richard A.** (1964)
Art
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- Gonzales, Richard R.** (1972)
Counseling
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Luis Obispo
- Gonzalez, Ismael** (1987)
Director, EOPS-CARE
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State University Hayward; M.A., University
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- Grenbeaux, Jean M.** (1965)
English, Education
B.A., San Jose State University; M.A.,
Stanford University
- Gutter, Malcolm D.** (1962)
Economics
B.A., City College of New York; M.A.,
University of California, Berkeley
- Hack, Sharon** (1989)
Travel Careers
B.A., Brigham Young University
- Handa, Judith H.** (1973)
Dean, Instruction & Student Affairs
B.A., M.S., University of Hawaii
- Harkin, Arthur P.** (1963)
Biology
A.A., Compton College; B.A., University of
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Utah
- Hasling, John** (1966)
Speech, Broadcasting
B.A., M.A., Sacramento State University
- Hawkins, Mark F.** (1965)
English, Humanities
B.A., Ph.D., University of California,
Berkeley; M.A., San Francisco State
University
- Hawkins, Mary K.** (2000)
Transition to Work
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- Hawley, Gene M.** (1967)
Physical Education
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- Heinz, Duane** (1970)
Chemistry
A.A., Hartnell College; A.B., Sacramento
State University; Ph.D., University of
California, Davis
- Hendrickson, Maribeth** (1974)
Philosophy
B.A., M.A., San Jose State University; Ph.D.,
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- Henning, Richard L.** (1967)
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California
- Heslet, Marylou M.** (1990)
Counseling
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Hayward; M.L.A., Stanford University
- Holler, Gordon W.** (1968)
Art
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- Hurd, Warren** (1998)
Dean, Faculty & Staff
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University
- Hutchinson, Clarence G.** (1966)
Counseling
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Art, Computer Graphics
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Computer Information Systems
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Librarian
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- Ketels, Henry E.** (1967)
Physical Education, Track
B.S., M.S., University of Southern California
- Kingson, Robert C.** (1965)
English
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Berkeley
- Klee, John B.** (1961)
French, Spanish
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- Kohs, Gerald D.** (1965)
English
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University of Michigan
- Konigsberg, Charles W.** (1973)
Ornamental Horticulture
B.S., M.A., California Polytechnic State
University, San Luis Obispo
- Lawlor, Steven C.** (1972)
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B.S., San Jose State University; M.B.A., Santa
Clara University
- Lindauer, Charles** (1997)
Mathematics
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City University of New York; Ph.D., Virginia
Polytechnic Institute
- Long, Bernard F.** (1965)
Physics
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John's Newfoundland; B.S., M.S., Dalhousie
University, Halifax, Nova Scotia; M.S.,
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- Lowe, Irel D.** (1967)
Associate Dean, Administrative Services
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Mathematics
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- Macadangang, Fortunato** (1973)
Counseling, EOPS
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Adaptive Learning, STEP Program Coordinator
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Santa Clara University; Ed.D., University of
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Music
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University
- Manley, John L. (Jay)** (1980)
Drama, Theater Conservatory
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Ph.D., University of California, Berkeley
- Manoogian, Norman V.** (1965)
Physical Education
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- Marvin, Denos P.** (1965)
Speech
B.A., Mexico City College; M.A., Teachers
College, Columbia University
- Mauch, James T.** (1964)
Division Dean, Language Arts
B.A., University of the Americas, Mexico;
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- Maus, Walter S.** (1958)
Business
B.A., San Jose State University; M.A.,
Stanford University
- McCarty, Lois** (1967)
Sociology, Psychology
B.A., M.S., San Jose State University
- McCulla, Ernest (Joe)** (1978)
Philosophy
B.A., M.A., Loyola University
- McDonald, Marilyn M.** (1984)
Librarian, Archivist
B.A., M.A., Stanford University; M.L.S., San
Jose State University; M.B.A., Golden Gate
University
- McHargue, Mike** (1977)
*Counseling, Honors Institute,
Staff Development*
B.A., Occidental College; M.A., California
State University, Northridge; Ph.D., Stanford
University
- McLanathan, Mary C.** (1959)
Division Dean, Biological & Health Sciences
- McNeill, Nayan** (1961)
English
A.A., Santa Ana College; B.A., M.A., Ph.D.,
U.C. Berkeley
- Mendrin, Roxanne** (1991)
Librarian, Library Technology
B.A., Dickinson University; M.L.S., Simmons
Graduate School, Boston; Ph.D., Boston
College
- Michalski, Ann T.** (1986)
Computer Technology & Information Systems
B.A., Hunter College; M.A., San Jose State
University
- Miller, Charles J.** (1969)
Mathematics
B.S., Iowa State University; M.A., University
of South Dakota
- Mishel, Joyce** (1975)
Travel Careers
B.A., Cornell University; M.A., New York
University
- Moffat, Glenn P.** (1964)
Biology
B.A., Science Education, B.S., Biology,
Western Washington University; M.S.,
University of Utah; M.A., San Jose State
University
- Morris, Victor** (1967)
Music
B.M., M.M., Manhattan School of Music
- Mortarotti, John L.** (1963)
Division Dean, Fine Arts
B.M., University of the Pacific; M.A.,
University of Washington
- Moss, Lloyd K.** (1966)
Chemistry
B.S., University of California, Los Angeles;
Ph.D., Stanford University

- Mraz, Doyne J.** (1967)
Drama
A.A., Sacramento City College; B.A., M.A., University of the Pacific; Ph.D., University of Southern California and Stanford University
- Norton, Nile** (1981)
Music
B.A., Coe College; M.A., D.M.A., Stanford University; Dipl., Hochschule für Musik, Vienna
- Olsen, Marky** (1968)
Counseling
A.A., Colorado Women's College; B.A., Colorado State College; M.A., San Jose State University; M.A., Santa Clara University
- Orell, Eloise J.** (1984)
Interim Vice President, Instruction & Institutional Research
B.S., University of San Francisco; M.S., Midwestern State University
- Osterdock, Leonis** (2002)
Director, Pharmacy Technology Program
B.S., University of the Pacific
- O'Donnell, Clarence R.** (1967)
Counseling
B.S., M.A., California State Polytechnic University
- O'Neal, Verley A.** (1989)
Computers & Information Systems
B.S., Princeton University
- Park, King T.** (1965)
Chemistry, Computer Information Systems
B.A., M.A., Rice University
- Parks, Jack D.** (1968)
Football, Physical Education, Track
A.A., Riverside College; B.A., M.A., University of California, Los Angeles
- Patterson, Marion** (1986)
Photography
B.A., Stanford University; M.A., San Francisco State University
- Patterson, William R.** (1971)
Vice President, Institutional Research & Instruction
B.S., California State Polytechnic University; M.A., Santa Clara University; Ed.D., University of Southern California
- Pauling, Kay** (1987)
Biology
B.A., Ph.D., University of California, Riverside
- Pavic, Mary Ann** (1975)
Division Dean, Biological & Health Sciences
A.A., Sacramento City College; B.A., M.A., San Jose State University
- Perren, Marjorie F.** (1966)
Business, Office Technology, Computer Information Systems
B.S., University of Nebraska; M.A., San Jose State University
- Pierce, Robert C.** (1971)
History
B.A., M.A., San Jose State University; Ph.D., University of Wisconsin, Madison
- Ploke, Irving** (1990)
Physical Education
A.A., De Anza College; B.A., M.A., San Jose State University
- Pon, Donald** (1971)
Chemistry, Computer Information Systems
B.S., M.S., Stanford University
- Prosser, Herbert** (1982)
Semiconductor Processing
B.A., Columbia College; M.A., Columbia University; Ph.D., Stanford University
- Quinn, James J.** (1970)
English
B.A., M.A., San Jose State University
- Rosenthal, Miriam P.** (1970)
Dental Assisting
A.A., Foothill College; B.S., University of San Francisco
- Roth, Irvin M.** (1959)
History
B.A., Occidental College; M.A., Stanford University
- Rotty, Elaine** (1981)
Physical Education, Intercollegiate Women's Golf
B.S., Winona State; M.S., Arizona State University
- Rouse, Lawrence D.** (1975)
Psychology
B.A., M.A., San Jose State University; Ph.D., Pacific Graduate School of Psychology
- Rude, D. Allen** (1966)
Health
B.S., M.S., Southern Illinois University
- Ruelas, Enrique** (1978)
Accounting, Business
B.A., San Francisco State University; M.A., San Jose State University
- Ryan, Lucia Ann** (1990)
Counseling, International Studies
B.A., St. Lawrence University; M.A., Santa Clara University
- Scheidig, Herman G.** (1967)
Journalism
B.A., M.A., University of Denver
- Schobert-Jones, G. Judith** (1966)
German
B.A., M.A., University of Utah
- Schrier, Nancy G.** (1969)
English
B.A., Smith College; M.A., Stanford University
- Schumacher, Barbara A.** (1965)
Physical Education
B.S., Douglass College, Rutgers University; M.A., University of California, Berkeley; M.A., Santa Clara University
- Scott, Walter** (1998)
Library Coordinator
B.A., California State University, Fresno; M.L.S., Queens College, City University of New York
- Seelbach, Eugene** (1975)
Mathematics
B.A., Blackburn College; M.A., Ph.D., University of Wyoming
- Seeger, Carolyn B.** (1975)
Counseling
B.S., M.S., San Jose State University; L.V.N.
- Shaner, Bryan** (1978)
Counseling
B.A., Raymond College; M.S., San Jose State University
- Sherrill, Richard R.** (1959)
Mathematics, Physics
B.S., University of California, Berkeley; M.A., San Jose State University
- Shipnuck, Murray E.** (1958)
Curriculum and College Articulation
B.A., U.C., Berkeley; M.A., Ed.D., Stanford University
- Silveria, William** (1986)
Computer Information Systems
B.S., University of California, Berkeley; M.S., Ph.D., University of Hawaii
- Sommerfield, Richard R.** (1968)
Physics
B.S., M.S., University of Arizona
- Spicer, Mona** (1979)
Dental Hygiene
B.A., M.A., San Francisco State University
- Stietzel, Eric R.** (1970)
Computer Information Systems, Mathematics, Philosophy
B.A., M.A.T., Yale University
- Strand, Tomas F.** (1969)
Mathematics, Engineering
B.S.E.E., Massachusetts Institute of Technology; M.S.E.E., Stanford University
- Summa, Terry** (1973)
Music
B.A., San Francisco State University; M.A., Holy Names
- Sutherland, Richard** (1967)
Librarian
B.A., Michigan State University; M.S., University of Michigan; M.L.S., University of California, Berkeley
- Sutter, E. Eugene** (1962)
History, Political Science
B.Ed., Illinois State University; M.A., University of Michigan
- Swenson, Bruce P.** (1967)
Dean, Instruction & Educational Resources
B.S., Stanford University; M.S., University of Wisconsin; Ph.D., University of California, Berkeley
- Taffae, Eleanor** (1979)
Psychological Services
B.A., Hunter College; M.A., Ph.D., University of Connecticut
- Talbot, Alan R.** (1967)
Baseball, Physical Education
B.A., M.A., Stanford University
- Telfer, Richard W.** (1966)
Mathematics
B.A., San Jose State University
- Thompson, Robert J.** (1959)
Business, Data Processing
B.A., California State University, Chico; M.A., Ed.D., Stanford University
- Thompson, William** (1974)
Business, Marketing
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- Thunen, Charlotte** (1986)
Librarian
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- Tinsley, William E.** (1964)
Philosophy
A.A., Chaffey College; B.A., San Jose State University; M.S., University of Oregon
- Torres, Rudy** (1969)
Psychology
A.A., Foothill College; B.A., M.A., San Jose State University; Graduate Intern, University of California, Berkeley
- Tuell, James** (1981)
CTIS, Data Communication
B.A., San Jose State University; M.S., Golden Gate University
- Urabe, Sandra** (1980)
Counseling
B.A., University of California, Santa Cruz; M.S. California State University, Hayward
- Urbard, Richard** (1974)
Respiratory Therapy
A.A., Foothill College; B.A., University of California, Berkeley
- Verberg, Lydia L.** (1962)
Health Counselor
B.A., University of California; M.P.H., University of California School of Public Health; M.D., New York Medical College
- Wagner, William S.** (1959)
Political Science
B.A., University of California, Santa Barbara; M.A., Columbia University
- Walker, Lee R.** (1959)
Mathematics
B.S., B.A., M.S., University of Southern California
- Walker, William O.** (1964)
Creative Writing, English
B.A., Bard College, New York; M.A., University of Connecticut
- Watson, Carol** (1978)
Adaptive Learning
M.S., Hofstra University
- Watts, June** (1967)
Acquisitions Librarian
B.A., University of Arizona; B.A., Holy Names College, Spokane; M.A., University of Denver
- Wirth, Jean** (1987)
Counseling, Articulation, Curriculum Officer
A.A., A.B., University of California, Berkeley; M.A., Ph.D., Ohio State University
- Wong, Rita** (1991)
English for Second Language Learners
B.A., San Francisco State University; M.A., University of Michigan
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German
Abitur Artland Gymnasium; D Jur, University of Heidelberg



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Gorman, Gary
Custodian I
Operations

Grillot, David
Math Center Assistant
Mathematics

Guzman, Alfred
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Middlefield Campus

Ha, Hien
Administrative Assistant I
Adaptive Learning

Hamilton, Agnes
Custodian
Operations

Hand, Art
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Library

Harding, Barbara
Library Technician, Senior
Library

Harris, Asha (Ach-'sah)
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Educational Resources & Instruction

Hawley, Diane
Bookstore Courseware Coordinator
Bookstore

Haynes, Debbie
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Educational Resources & Instruction

Haywood-Smith, Maisha
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Student Outreach & Retention

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Extended Opportunity Program & Services

Henderson McLeod, Joyce
Test Proctor
Adaptive Learning

Hernandez, Lyliana
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Student Outreach & Retention

Hernandez, Tomas
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Hinds, Susanne
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Library

Hodges, Pamela
Library Technician, Senior
Library

Hollins, Wilbert
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Hunter, Elizabeth
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Physical Education

Ishikawa, Akemi
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Work Force Development & Instruction

Jen, Rosalinda
Division Administrative Assistant
Facilities/Physical Education

Johnson, Alice
Math Center Assistant
Mathematics

Johnson, Anne
Program Coordinator I
Tutorial Center

Johnson, Christine
Financial Aid Assistant
Financial Aid

Johnson, Eric
Radio Station Coordinator
Fine Arts & Communication

Jung, Henry
Admissions & Records Supervisor
Admissions & Records

Kikoshima, Helen
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Foothill Global Access

Kitagawa, Anthony
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Fine Arts & Communication

Knepp, Richard
Photography Laboratory Technician
Fine Arts & Communication

Kolesnikova, Viktoriya
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International & Distance Learning

Kuo, Elaine
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Institutional Research & Planning

Landes, Norm
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Language Arts

Largent, Allison
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International & Distance Learning

Levine, Arthur
Administrative Assistant Senior
International & Distance Program

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Physical Sciences Math & Engineering

Luu, Lily
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Extended Opportunities Programs &
Services

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Admissions & Records

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District Safety & Security

McAlpin, Judi
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Middlefield Campus

McCarron, Jean
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Fine Arts & Communication

McKellar, Charlie
Program Coordinator II
Middlefield Campus

McLeod, Norman
Custodian II
Operations

Meade, Jeff
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District Police & Safety Services

Miller, Darnell
Custodian III
Buildings & Grounds

Mines, Sherri
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International Education

Mitchell, Stephen
Program Coordinator II
Student Activities

Moore, Christina
Theatre & Fine Arts Assistant
Fine Arts & Communication

Morrow, Diana
Instructional Associate
Fine Arts & Communication

Muntean, Nicolae
Printing Services Coordinator
Educational Resources & Instruction

Murphy, Kevin
Financial Aid Coordinator
Financial Aid

Nelson, Leif
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District Safety & Security

Noone, Leslye
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Language Arts

Nuñez, Corinne
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Instruction & Institutional Research

Olsen, Scott
Workstation & Systems Support Technician II
Educational Technology Services

Olsen, Sindy
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Fine Arts & Communication

Ortiz, Erin Clifford
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Student Affairs & Activities

O'Neill, Joanne
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Celebrity Forum

Paragas, Bernie
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Educational Technology Services

Parker, Pamela
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Marketing & Communications

Paulino, Patricia
Secretary
Health Services

Perez, Denise
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Educational Resources & Instruction

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Middlefield Campus

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Student Affairs & Activities

Quesada, Ernestine
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District Police & Safety Services

Quiros, Amelia
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Bookstore

Ramos, Mario
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Physical Sciences, Mathematics & Engineering

Razzaqui, Zarmina
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Work Force Development

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Riggins, Julie
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Media Center

Riley, William
Police Officer
District Police & Safety Services

Robinson, Linda
Instructional Associate
Media Center

Rocha, Francisco
Police Officer
District Police & Safety Services

Rodriguez, Carlos
Custodian
Buildings & Grounds

Rodriguez, Faustino
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Buildings & Grounds

Rodriguez, Jorge
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Admissions & Records

Ruffinelli, Alvaro
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Ruiz, Cipriano
Custodian I
Operations

Satana, Pedro
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Custodial

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Marketing & Communications

Schukraft, Michelle
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Physical Education

Shields, Tita
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Institutional Research & Instruction

Sias, Roberto
Bookstore Courseware Coordinator
Bookstore

Smith, Christine
Coordinator
District Police & Safety Services

Smith, Karen
Library Technician, Senior
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Solorzano, Jesus
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Operations

Stenger, Annette
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Sum, Steven
Alternative Media Specialist
Adaptive Learning

Tapia, Ariel
Gardener
Buildings & Grounds

Thomas, Deborah
Custodian I
Operations

Thomas, Lori
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Marketing & Communications

Thornton, Kay
Theatre & Fine Arts Facilities Coordinator
Fine Arts & Communication

Tran, David
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Educational Technology Services

Tran, Long
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Educational Technology Services

Tran, Nhung
Program Coordinator I
Adaptive Learning

Tran, Phuong
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Placement Services

Vandercook, John
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Educational Technology Services

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Buildings & Grounds

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Vines, Michael
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Buildings & Grounds

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Wall, Peter
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Marketing & Communications

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White, Chris
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Educational Resources & Instruction

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Xu, Wen
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Xuereb, Carmela
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Admissions & Records

Yamada, Suzanne
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Counseling

Zuniga, Paul
Instructional Associate
Fine Arts & Communications



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To request this publication in alternative media such as Braille or large print, call (650) 949-7630.

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Campus Information

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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.



Area & Middlefield Campus Maps



FOOTHILL COLLEGE

Main Campus

12345 El Monte Road
Los Altos Hills, CA 94022-4599
(650) 949-7777
(650) 949-7375 (fax)



FOOTHILL COLLEGE

Middlefield Campus

4000 Middlefield Road
Palo Alto, CA 94303-4739
(650) 949-6950
(650) 949-6979 (fax)

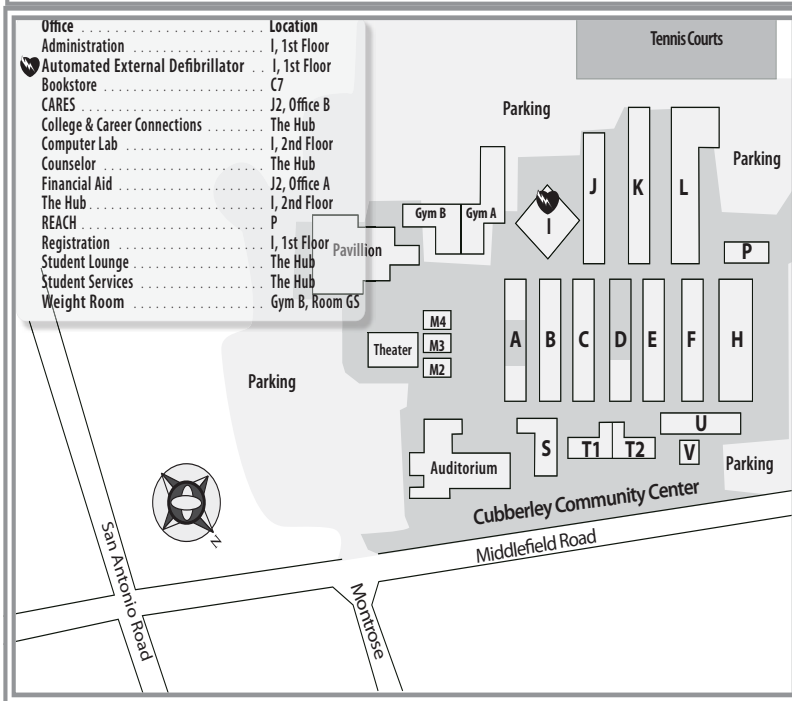
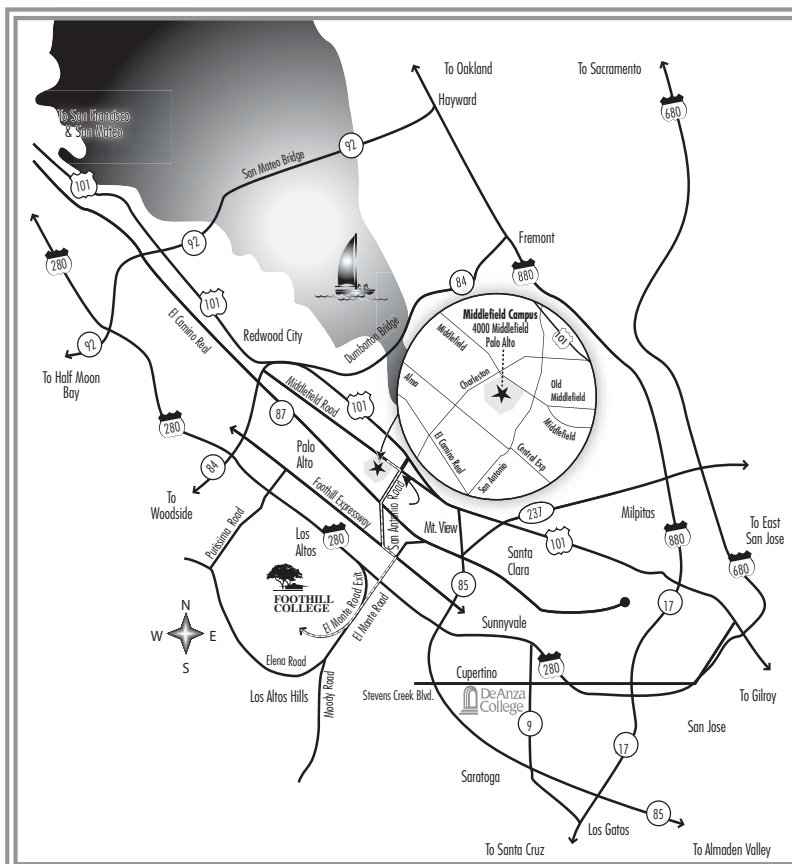
Directions to Foothill College Main Campus

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

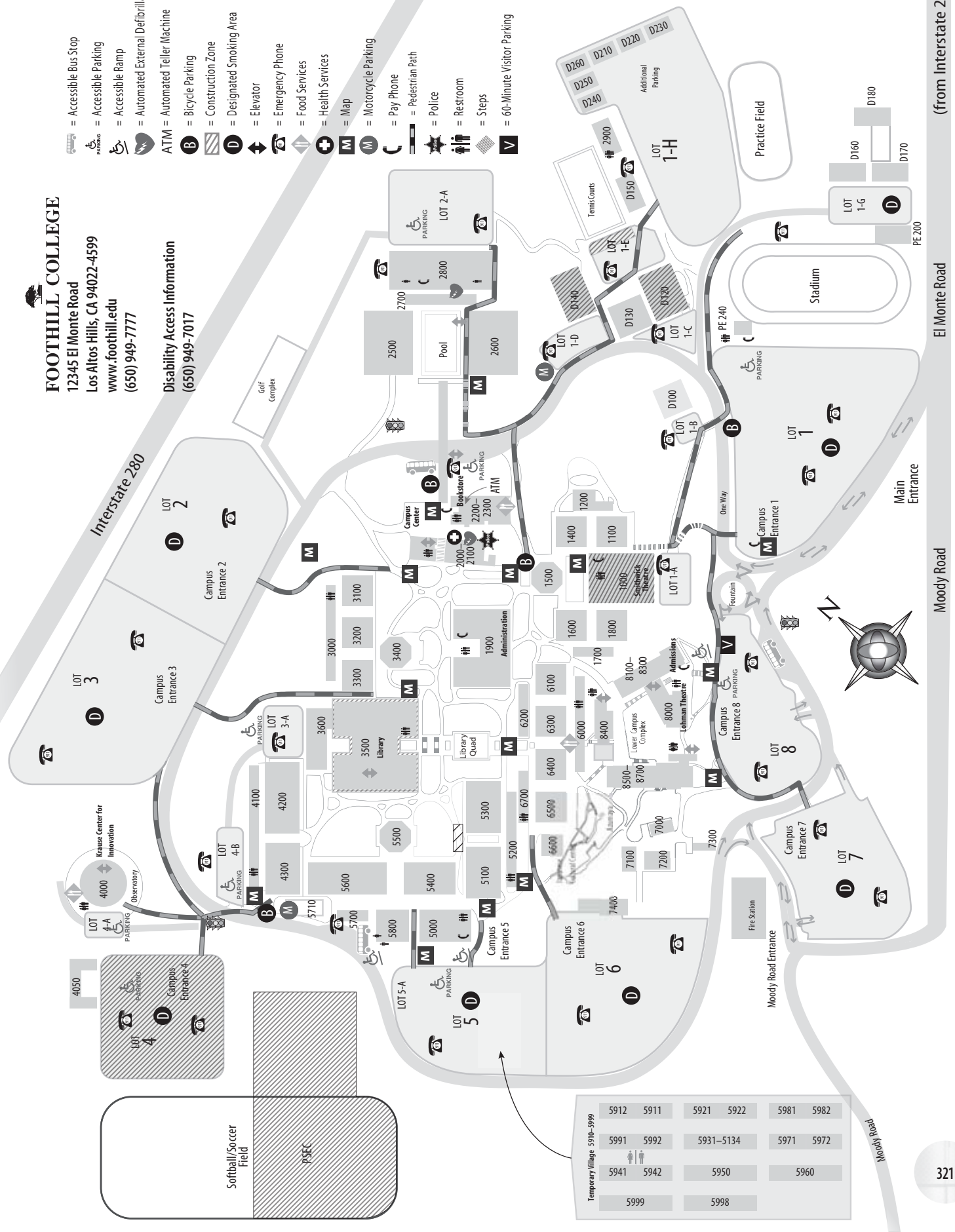
PROGRAM/DIVISION	LOCATION	PROGRAM/DIVISION	LOCATION	ACCESS INFORMATION
Academic Senate	1929	IDEA Lab	1211	<h2>Parking</h2> <p>All vehicles must display a parking permit at all times including weekends. Failure to display a permit will result in a citation. Day-use permits are \$2 at dispensers located in all student parking lots. Quarterly and annual permits can be purchased at the Admissions Office (Room 8101).</p> <h2>Accessible Elevators</h2> <p>Located at Krause Center for Innovation, Library, Pool Deck, Campus Center, Student Services Building & Life Sciences Building</p> <h2>Accessible Parking</h2> <p>Located in Lots 1, 2-A, 3-A, 4, 4-B, 5, 8 and all transit stations. You must display the DMV-issued placard. To obtain a temporary disability on-campus permit, call (650) 949-7017</p> <h2>Shuttle Service</h2> <p>To all points on campus is available for students with physical disabilities. For operating hours, call (650) 949-7017.</p> <h2>Deaf & Hearing-Impaired Access</h2> <p>E-mail DavisBrenda@foothill.edu. For more access information, visit the Disability Resource Center (Room 5801); access www.foothill.edu/al; or call (650) 949-7017.</p>
Adaptive Learning Division	5801	Instructional Support Center	3612	
Adaptive Physical Education	2509	International Programs	1940	
Admissions & Records Office	8101	International Students Office	1934	
Altos Room	2019	Intramurals	2150	
Appreciation Hall	1501	KFJC-FM Radio Station	6202	
Apprenticeship Program	1948	Krause Center for Innovation	4001	
Articulation	1960	Language Arts Division	6406	
ASFC Design Center	2017	Library	3501	
ASFC Smart Shop/OwlCard	2016	Lohman Theatre	8002	
Associated Students of Foothill College (ASFC)	2011	Marketing & Communications	1950	
Biological & Health Sciences Division	5211	Matriculation	8301	
Bookstore	2301	Middle College	2152	
Business & Social Sciences Division	3007	Observatory	4001	
Career Center	8329	Occupational Training Institute (OTI)	6408	
Chancellor's Office	D120	Older Adult Program & VAMC	5801	
Chinese Heritage Room	3523	Outreach & Retention Office	8102	
Classified Senate	1932	Pass the Torch	5999	
Computer Access Center	5710	Physical Education & Athletics Division	2710	
Cooperative Work Experience Program	1945	Physical Sciences, Mathematics & Engineering Division	4118	
Counseling Division	8301	Placement Testing	8213	
CTIS Computer Center	4001	Police	2103	
Dental Hygiene Clinic	5312	President's Office	1904	
Dining Room	2201	PSME Center	4213	
Disability Resource Center	5801	Psychological Services & Personal Counseling	2120	
Distance Learning	3600	Quick Copy	4052	
Entrepreneur Center	4015	Robert C. Smithwick Theatre	1001	
Environmental Horticulture & Design	8602	Service Learning & Volunteer Center	2150	
EOPS Computer Lab	8212	Student Accounts	2006	
EOPS Tutoring	3526	Student Activities	2009	
Evening College	1908	Student Affairs	2002	
Extended Opportunity Program & Services (EOPS) Office	8202	Student Success Center	8102	
Facilities Rental	2713	Temporary Village	5901-5999	
Faculty Association	D140	Theatre Box Office	8007	
Financial Aid	8202	Toyon Room	2020	
Fine Arts & Communication Division	1701	Transfer Center	8329	
Fitness Center	2506	Transition to Work	5801	
Forum	5001	Tutorial Center & Programs	3526	
Health Services	2126	Veterans Resource Center	2014	
Hearthside Lounge	2313	Veterinary Technology	8504	
Honors Institute	1960	Wellness Center	2506	

To accommodate construction projects, expect some offices and services to be relocated on campus.

FOOTHILL COLLEGE
 12345 El Monte Road
 Los Altos Hills, CA 94022-4599
 www.foothill.edu
 (650) 949-7777

Disability Access Information
 (650) 949-7017

- = Accessible Bus Stop
- = Accessible Parking
- = Accessible Ramp
- = Automated External Defibrillator (AED)
- = Automated Teller Machine
- = Bicycle Parking
- = Construction Zone
- = Designated Smoking Area
- = Elevator
- = Emergency Phone
- = Food Services
- = Health Services
- = Map
- = Motorcycle Parking
- = Pay Phone
- = Pedestrian Path
- = Police
- = Restroom
- = Steps
- = 60-Minute Visitor Parking



5912	5911	5921	5922	5981	5982
5991	5992	5931-5134	5971	5972	
5941	5942	5950	5960		
5999		5998			

(from Interstate 280)

El Monte Road

Moody Road



FOOTHILL COLLEGE